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AUTHOR Tiede, Lynn M.
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ABSTRACT

While leaders in India have been slower than other non-Western nations to encourage the sales of Western fast food products, signs of these foods are present in larger cities like Delhi, Bombay, Calcutta, and Madras. This unit of study is a series of lessons designed to introduce junior high school or high school students to various aspects of the culture, religion, history, economy, and political structures of India. The unit's lessons, however, center around food as a method of introducing the particular objective. Pointing out that Indians, as they meet the continuing challenges of feeding nearly 1 billion people, can learn from U.S. mistakes in "modernizing" their diets and attitudes towards food. The unit's materials seek to help children to begin learning these lessons. The lessons can be given individually or collectively as part of a unit. Some lessons may need two days to complete. Following an introduction, lessons are: (1) "Indian Food: Lesson Plans and Supplementary Materials"; (2) "Indian Food Customs: Lesson Plans and Supplementary Materials"; (3) "Meeting the Basic Needs: Problems and Success--Lesson Plans and Supplementary Materials"; (4) "Religion and Food: Lesson Plans and Supplementary Materials"; and (5) "Traditional and Modern Diets: Lesson Plans and Supplementary Materials." Each lesson contains an objective/aim for the student, materials needed, vocabulary, motivation strategy, and additional teaching strategies. A 65-item bibliography is also included. (BT)

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ED 434 050

# CURRICULUM PROJECTS DEVELOPED BY 1998 SEMINAR PARTICIPANTS

## Food for Thought.
## Fulbright-Hays Summer Seminars Abroad 1998 (India)

**Submitted to**

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Lynn M. Tiede
425 E 114th St. #4RE
New York, NY 10029
USA

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*United States Educational Foundation in India*

# Food for Thought

submitted in fulfillment of
Curriculum Project Requirements of the
1998 Fulbright in India Award

by

Lynn M. Tiede
425 E 114th St. #4RE
New York, NY 10029
USA

# Food for Thought

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# FOOD FOR THOUGHT

## Introduction

The American diet has changed drastically since the early 1900's. At this point in American history, family farming was beginning to be replaced by large industrial farms. Foods were being processed and preserved with new technologies for ease of transport to and storage at stores in the growing cities. Business people of the early 20th century realized there was lots of money to be made by manufacturing salty and sugary foods with catchy names. Salty and sugar sweetened foods create cravings for more of these foods. People would buy lots of these products, sending more profits to businesses. At that time there were no studies on the effects of these foods on the human body, environmental effects, or ethical standards, so businesses could earn profits without concern for health hazards, cruelty to animals, and the poisoning of the environment that resulted from the production of these new foods.

These business people and early city dwellers could not imagine the deadly combination of these dietary changes and the reduced physical activity of city life. Citizens of the 1990's are beginning to fully appreciate the health problems such as heart disease, cancer, diabetes hypertension, and obesity that many doctors directly link to the changes that came about in our diet and activity levels over the last 90 years. Americans replaced a diet centered around healthy home grown vegetables and fruits, and whole grains, for one laden with salt, sugar, fat, and animal products, especially in the form of processed junk foods. They replaced an active life of raising their own foods with one of driving to fast food restaurants and mega food supermarkets where they could purchase the unhealthy foods in ever-increasing quantities.

Today, despite what nutritionists and doctors have discovered, Americans and many other Westerners continue to let advertising and convenience rather than healthfulness of foods determine what they choose to eat. Those who are responding to the warnings and returning to a diet similar to our farming ancestors tend to be the affluent who have more access to this information. They have the time and money to spend on exercise programs, and to purchase foods from health stores.

This is ironic for in the 1900's it was the more affluent city dwellers in first world countries who could afford the new processed treats. The poor citizens and those from rural communities in this country and in non-western third world cultures continued to eat healthier low fat, vegetable, fruit, and grain based diets. Now, however, many non-westerners , including Indian's, seek to adopt the diets of the Western cultures as signs of status --the harmful diets based on coke, McDonald's hamburgers, and candy bars. These people and the poor in Western societies remain more unaware of the health risks of moden diets and convinced of the adequacy and glamour of eating certain processed junk foods. Furthermore, the economic conditions and social structures in American society sometimes make these junk foods cheaper than fresh foods in neighborhoods where the poor often live. The stresses of life for the impoverished in America also make exercise regimes practically impossible. Health clubs are lacking in these communities as well.

While leaders in India have been slower than other non-western nations to encourage the sales of Western fast and junk food products, signs of these foods are present in larger cities like Deli, Bombay, Calcutta, and Madras. India seems, however, to be at a crucial turning point. For now the majority of its citizens remain farmers with active lives and healthy vegetarian diets. But will the nation follow the same path as America as it heads toward the 21st Century? Or can India learn from the West's mistaken "modern" diet and maintain her traditional diet that simultaneously encourages a reverence for life and the environment?

## The Lessons

The following is a series of lessons designed to introduce junior high school or high school students to various aspects of the culture, religion, history, economic, and political structures of India. Elements of tradition and modernity can be clearly viewed in all of these areas of Indian culture.

All of the following lessons, however, center around food as a method of introducing the particular objective. Increasing numbers of Americans are concerned with healthier diets, diseases and eating disorders caused by modern diets, animal rights, world hunger, pesticide usage, and the environmental degradation caused by modern farming techniques. This suggests that attention to the role food production and diet play in one's life is crucial. India's traditions can remind Americans of healthier habits and reverence for food, the environment, and animals. Likewise Indian's can learn from America's mistakes in "modernizing" our diets and attitudes toward food as they meet the continuing challenges of feeding nearly 1 billion people. The following curriculum materials seek to help children begin learning these lessons.

The lessons can be given individually or collectively as part of a unit. Some lessons may need two days to complete depending on individual teacher's time per class period. Some visual and hands - on materials will not be possible to reproduce, as they were obtained in India during the Fulbright visit. However, substitutions have been suggested when possible . Additional supplemental news articles or background information are also included when possible, although they may not be directly referred to in the lesson plan. All material included is intended for student research purposes only. They are provided as samples of materials students might use. Individual teachers should use resources available to them. Large scale reproduction of text should be done only with permission of text publishers.

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# Indian Food Customs

Objective / Aim: For social studies students to describe various customs and unusual traditions related to food, locate particular regions where they are popular in India, and identify them in practice with the help of photos. Students will then list particular American customs that may be similar or seem unusual to Indians or other foreigners and to describe values of the Indian people that can be seen through their food customs.

Materials: 1. List of customs and region in Indian from which it comes.

2. Map of India, with correlating numbers to customs listed on worksheet.

3. Newspaper cone, Indian lunch box , pottery cups, and leave plates
*(Teachers can substitute clay plant pots, large leaves from any tree, and can make newspaper cones from any newspaper. Photos are also included).

4. Pictures of various customs (when and where possible).

Vocabulary : dhabbas, bhel-puri, value, Kolam, Rakshabandhan

Motivation: Show students large leaf plates & bowls, metal Indian lunch box, (or zeroxed photo of it) pottery cups, and newspaper "cones". Ask them what they think the items were used for, noting that they can be commonly found on the streets of India. After several minutes, tell students their uses and show photos of these items being used.

1. Leaf plates, used to serve food on.
2. pottery cups, disposable tea cups for street vendors
3. newspaper cones, used to sell street snacks such as dried nuts, beans, & grains called bhel -puri, especially in Bombay.
4. metal container - lunch box

Explain that there are other customs and traditions in India related to food that are very different from what is done in our nation.

Do Now / Strategies: Distribute list of customs and maps. Direct students to read through customs as a group and search for places where this is practiced if it is not a nationwide custom. Direct students to look at corresponding pictures when possible and try to find the photo that matches with the custom. Let students work on these activities individually for 10-15 minutes and then go over and discuss the material with them as they correct their answers. Discussion should highlight different values the customs indicate are present in Indian culture. Suggest such items as respect for nature (reuse of newspapers, recycling of leaves and pottery, not wearing shoes in kitchen, leaving rice powder for animals,), reverence for religion (offerings to gods of foods and in rice powder designs) reverence for other humans (pressing rice to forehead when arriving at a home, offering food to guests, to brother on holiday, delivery of home cooked food in dhabbas) not wasting foods and seeing cooking as sacred endeavor (not entering or wearing shoes in kitchen), using only right hand to eat, placing water on right side), lack of clean water (children bringing water to school).

After discussing the various customs, ask students to write on chart whether there is a comparable custom in America.. Then below on this worksheet, ask students to list customs we have involving food that might seem strange to Indians or other foreigners.

Evaluation: Students will write a short reaction explaining five customs they found to be the most different or interesting. Ask them to write what these customs have taught them about Indian people and their attitudes toward food.

# Indian Food Customs

1. You will be shown four items. Write on your paper how you believe these items are used. Then, while your teacher is discussing their actual uses, write this information on your paper as well.

How I believe item is Used Actual Use

a. leaves ______________________________

b. newspaper cone ______________________________

c. metal canister ______________________________

d. pottery cups ______________________________

2. You have been given a map and the following list of customs related to food in India. Se if you can locate the city where that custom takes place on your map if a city name is given. Then see if you can match the custom to the picture of that custom on the following pages. Write the number of the custom next to the picture where it is illustrated.

1. taking off shoes when entering kitchen and not entering kitchen at all in a traditional Hindu home
2. offering food and pressing rice to forehead to guest visiting your home or business
3. Bombay -dabbas -lunch delivery system
4. placing water on right of plate when eating a meal, not left
5. eating with right hand only, not left, and traditionally without forks, spoons, and knives
6. Madras - Kolam / Rangoli-making rice grain designs in front of house for offering to the gods for thanks. Allowing animals to eat rice powder .
7. North India -Rakshabandhan offering sweets to brother on day of recognition and (all over India) offering sweets at any celebration to friends and family
8. bringing water to school
9. Delhi - mango festival in July to display mangoes and emphasize cultural traditions around the mango. India produces 55 % of the world's mangoes.
10. offering sweets to gods at temples - particularly to Ganesh and during Diwali festival

3. What values do you think these customs illustrate are very important to Indian people?

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

4. For all the customs described above list whether there is a comparable custom present in America.

a.________________________________________
b.________________________________________
c.________________________________________
d.________________________________________
e.________________________________________
f.________________________________________
g.________________________________________
h.________________________________________
i.________________________________________
j.________________________________________

5. Are there any customs related to food in America that might seem different to an Indian, or any foreignor? Try to think of at least 5. For each custom you describe write down what values or aspects of American culture the customs teach.

a.________________________________________

b.________________________________________

c.________________________________________

d.________________________________________

e.________________________________________

## Vocabulary

dabbas - lunches packed in cylinders delivered to the working people of Bombay from their homes in outlying areas. Also, streetside lunches.

bhel-puri -a street snack often served in newspaper cones made by cereals, chutney, and spices together

Kolam- rice powder designs placed at the entrance of a home

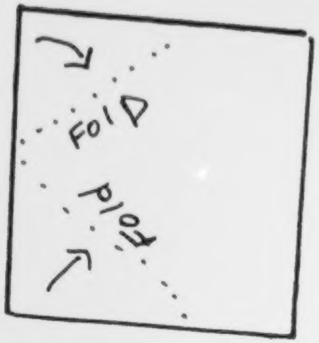
Rangoli - designs at the entrance of a home or business

Rakshabandhan - a holiday where sisters honor brothers and ask for their protection by tying a small bracelet on their wrist and often giving them sweets to show their appreciation.

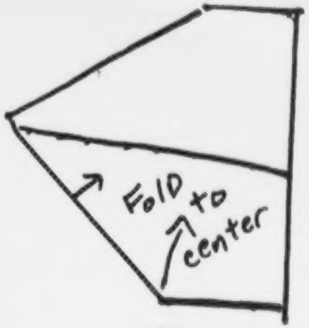
value - a belief or practice that is most important to a person or group of people

Diwali - festival of lights in October/ November. Homes and businesses are lighted and gifts of sweets offered to the goddess Lakshmi. Sweets are exchanged between friends and families.

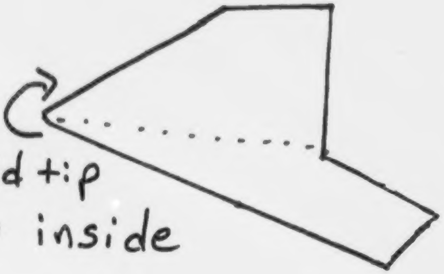
# Directions for making Newspaper Cone



① Square sheet of newspaper
or
rectangular

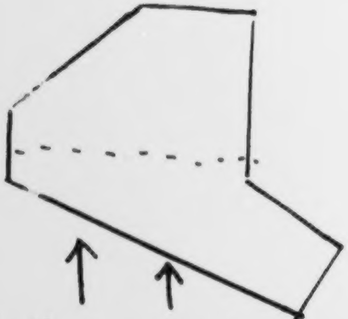

Fold to center

②

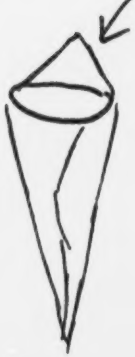


Fold tip
to inside

③

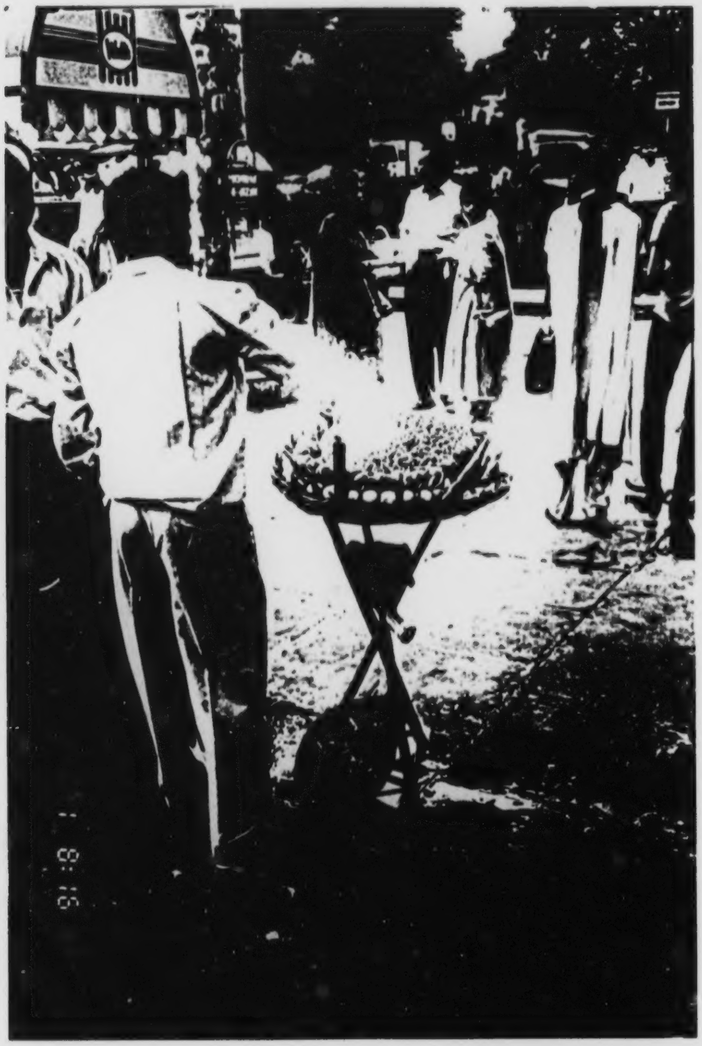


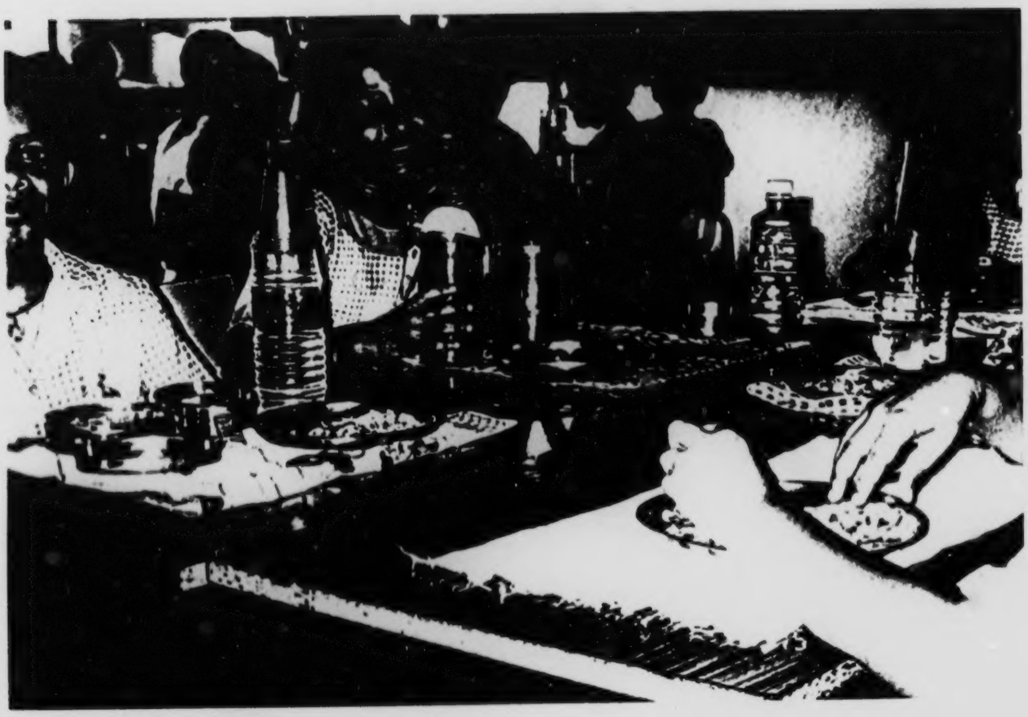
④ Roll toward opposite side



Fill WITH
SNACKS!

Steamed grains sold in newspaper cones.



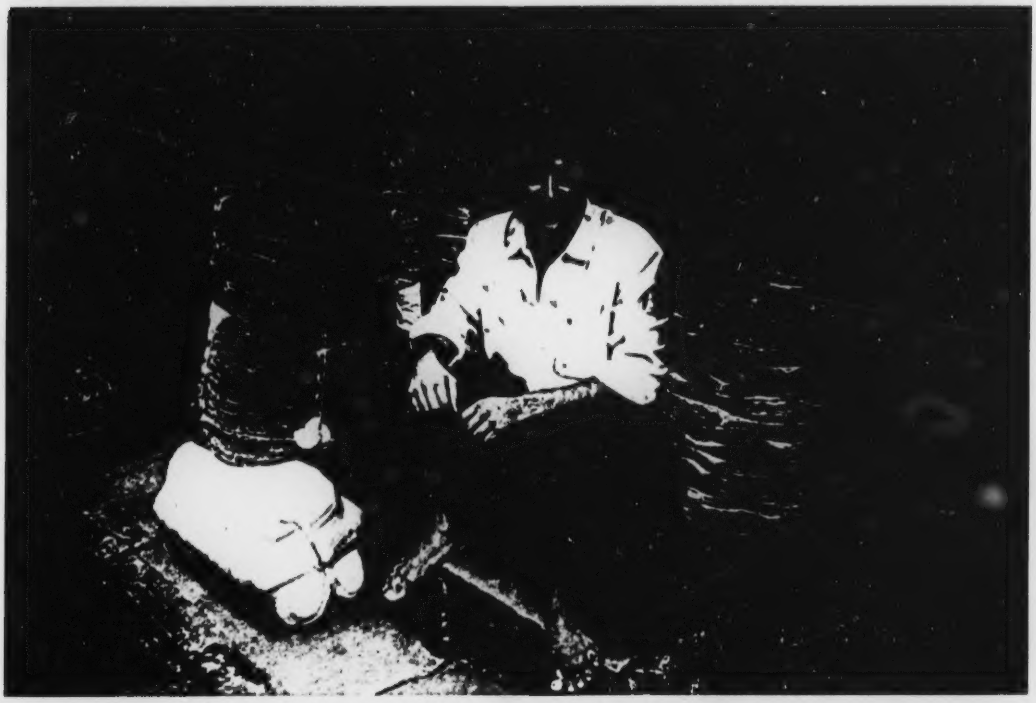


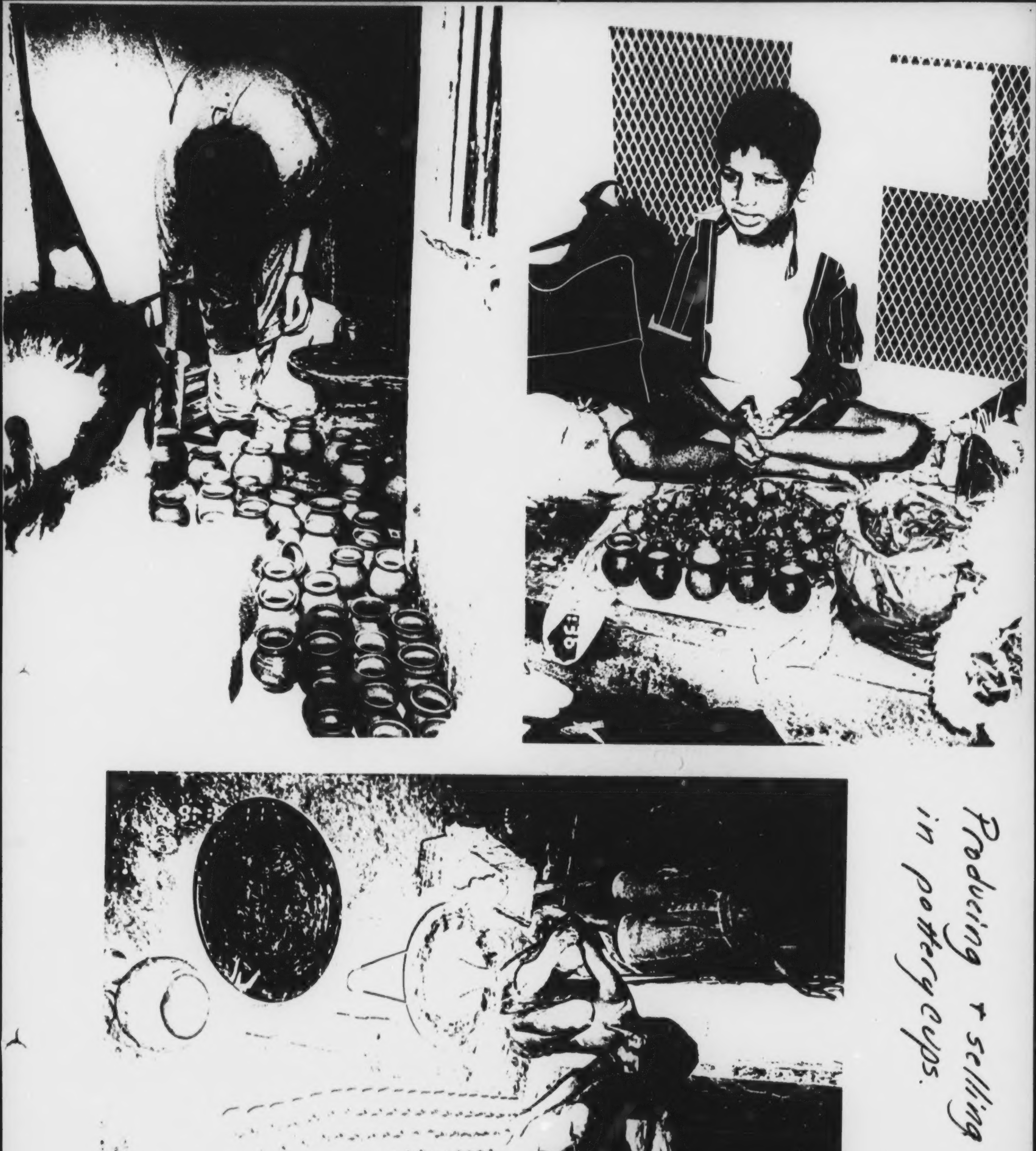
Indian tin lunchbox

+(#8) Bringing water to school

Producing pottery cups.

Leaf "plates"

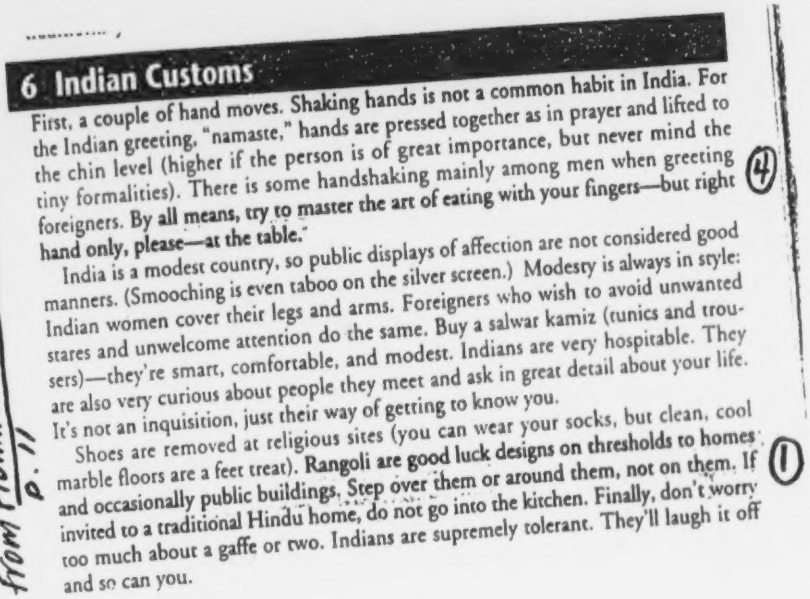




Producing + selling beverages in pottery cups.

Selling tea in handmade pottery cups.

From Frommers: India on $45 a Day p. 11



## 6 Indian Customs

First, a couple of hand moves. **Shaking hands is not a common habit in India.** For
the Indian greeting, "namaste," hands are pressed together as in prayer and lifted to
the chin level (higher if the person is of great importance, but never mind the
tiny formalities). There is some handshaking mainly among men when greeting
foreigners. **By all means, try to master the art of eating with your fingers—but right
hand only, please—at the table.**

India is a modest country, so public displays of affection are not considered good
manners. (Smooching is even taboo on the silver screen.) Modesty is always in style:
Indian women cover their legs and arms. Foreigners who wish to avoid unwanted
stares and unwelcome attention do the same. Buy a salwar kamiz (tunics and trou-
sers)—they're smart, comfortable, and modest. Indians are very hospitable. They
are also very curious about people they meet and ask in great detail about your life.
It's not an inquisition, just their way of getting to know you.

Shoes are removed at religious sites (you can wear your socks, but clean, cool
marble floors are a feet treat). **Rangoli are good luck designs on thresholds to homes
and occasionally public buildings. Step over them or around them, not on them.** If
**invited to a traditional Hindu home, do not go into the kitchen.** Finally, don't worry
too much about a gaffe or two. Indians are supremely tolerant. They'll laugh it off
and so can you.

(4)

(1)

From Fulbright Guide Book p. 20

### Hospitality in Indian Homes

Indians are known for their hospitality; which is both generous and sincere. You will often find Indians extremely friendly, eager to be helpful and curious. Except in modern Indian homes, it is not customary to invite others to casual meals. If friends want to entertain, they may invite you to a restaurant instead. Visits to homes however are welcome. Care must be taken neither to offend nor to impose on generous hosts. **You may try eating with your hands in the Indian fashion. Indians use only the right hand for eating.**

(4)

The social use of alcoholic beverages in India is not common except among westernized Indians. You are obligated neither to offer nor accept alcoholic drinks in Indian society. Indians are however tolerant if you choose to drink. Intoxication will not be tolerated.

Ascertain when inviting an Indian guest for a meal whether he and his wife are vegetarian or non-vegetarian. Vegetarian means no meat, fish, or fowl - only vegetables. Some vegetarians eat no eggs (not even in pudding or baked food). Non-vegetarian means meat, fish, fowl and eggs. Muslims do not eat pork; Hindus do not eat beef.

② Greeting guests with rice grains + vermillion powder.

FROM: Classic 1000 Indian Recipes

⑦

# Desserts and Sweets

+② +⑩

Indian desserts are very rich, and many of them are milk-based. A small portion is a delicious way to finish a meal. Use a non-stick saucepan if possible because some of them stick to the pan very easily.

Sweets play an important role in India. No function or festival is celebrated without sweets. Sweets are always distributed among relatives, friends and neighbours whenever a child is born, a marriage takes place, on birthdays or other celebrations. It is a lovely way to encourage celebration and bring people closer together.

## Pineapple Salad

Serves 6

175 ml/6 fl oz/¾ cup pineapple juice • 15 ml/1 tbsp arrowroot
60 ml/4 tbsp clear honey • few drops of kewra or rose water
1 pineapple, sliced • 2 apples, cored and sliced • 2 bananas, sliced
30 ml/2 tbsp raisins • 30 ml/2 tbsp pine nuts, chopped
15 ml/1 tbsp lemon juice • 50 g/2 oz strawberries
120 ml/4 fl oz/½ cup soured (dairy sour) cream

**Bring the pineapple juice to a boil. Mix the arrowroot and honey and stir into the juice. Simmer for 15 minutes. Add the kewra or rose water and simmer for 3 minutes then pour into a large bowl. Add the prepared fruit to the juice then gently stir in the raisins, pine nuts and lemon juice. Cover and refrigerate for about 2 hours, stirring occasionally. Stir in the strawberries and serve with a dollop of soured cream.**

## Fruit Chat

Serves 4-6

100 g/4 oz apples • 100 g/4 oz pears • 100 g/4 oz guavas
100 g/4 oz seedless grapes • 3 bananas • 30 ml/2 tbsp lemon juice
15 ml/1 tbsp sugar • 5 ml/1 tsp garam masala
2.5 ml/½ tsp ground red chilli • salt

**Cut the apple, pear and guavas into 2.5 cm/1 in pieces, separate the grapes and slice the bananas. Place in a bowl with the remaining ingredients, toss together gently and serve cold. You can substitute other fruits of your choice, such as pineapple, orange, papaya, apricot, peach and melon.**

BEST COPY AVAILABLE

②

# Snacks

**Snacks play an important part in an Indian household, especially in the late afternoon and in the summer when days are long and late suppers are usual. Afternoon tea, or 'tiffin', includes a variety of nibbles and the Indian housewife can always produce sev and nimkis from her larder. In India, friends and relations may visit you at any hour of the day, and the host always offers them something to eat and drink.**

## Sev Puri

Serves 4

12 Puris (page 309) • 2 boiled potatoes, chopped
1 onion, finely chopped • ½ cup Sev (page 353)
45 ml/3 tbsp chutney • 1 green mango, chopped
15 ml/1 tbsp chopped fresh coriander (cilantro)

**Arrange the puris on a plate and top with the potatoes and onion then the sev. Add chutney to taste and garnish with the mango and coriander.**

## Batato Puri

Serves 4

12 Puris (page 309) • 3 boiled potatoes, chopped
60 ml/4 tbsp natural (plain) yoghurt • salt
5 ml/1 tsp chilli powder • 15 ml/1 tbsp chutney
15 ml/1 tbsp chopped fresh coriander (cilantro) • 5 ml/1 tsp ground cumin

**Arrange the puris on a plate and make a hole in the centre of each. Stuff the potatoes into the puris and sprinkle with salt and chilli powder then a little chutney. Garnish with coriander and cumin and serve at once.**

③

## Dabbas—Lunch the Bombay Way

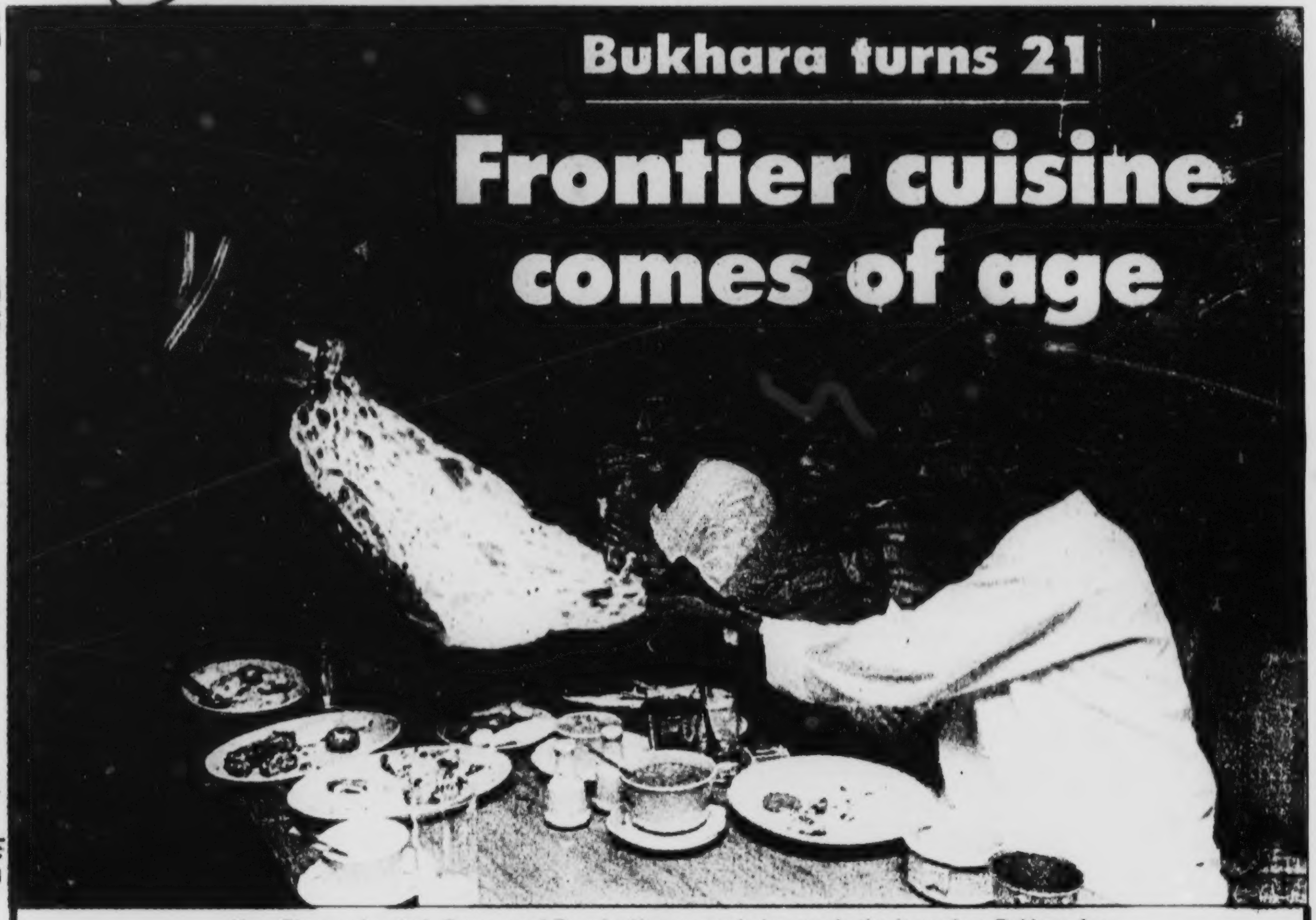
Bombay has an unusual food service that creates one of the great sights in the city's never-dull streets. Throughout Bombay, on workdays before noon, you will see many messengers negotiating the congested streets with large wooden platforms holding foot-high tin cylinders balanced on their heads, or pushing carts full of these receptacles. In the cylinders are hot lunches for clerks in offices, bazaar wallahs, executives, and factory hands all over Bombay. But they are not from local caterers.

The lunches, known as dabbas, were made earlier that morning in kitchens at the recipients' homes all over the outlying areas, spooned into the cylinders, which have several interlocking dishes, sealed tight, and identified with a written code standing for a person's name. With countless other identical cylinders, they then are loaded by messengers on trains to make extensive journeys from the suburbs to Victoria Terminus and Central Station, two main pickup points in Bombay. By now, I am speaking of 100,000 of these cylinders, all alike except for their codes, all lined up, ready and waiting for delivery in an hour or so to somewhere specific in the huge city of Bombay.

Picked up by the messengers, who can decipher the codes but can't read otherwise, the cylinders, remarkably, are taken to the right place to give the right person the right hot lunch at the right time. When the lunch break is over, the messengers pick up the cylinders, retrace their steps, and are themselves back home before 4pm. Another shift of messengers serves the night workers.

Aside from providing a hot meal at midday and being a lot cheaper than going out, these lunches do something else. They permit a melting pot of people working in Bombay to observe many different regional and religious customs, which are not easily abandoned anywhere in India.

④ Eating with water placed at right + with
+⑤ right hands - no forks, knives, or spoons.



## Bukhara turns 21

# Frontier cuisine comes of age

Uma Sharma (centre), Pawan and Renuka Verma regularly sample the legendary Bukhara fare

From Frommers: India on $45 a Day

(4), (5)

## 7 Eating in India

There are restaurants all over India where you can get good food at budget prices. Some of these restaurants specialize in Western and Continental fare, others in Chinese cuisine. In some top hotels, you'll find expensive French, Italian, Japanese, and Thai restaurants in appropriately evocative settings. Once in a while you'll find Middle Eastern and Mexican cuisine.

But the reason to go to India is to sample the tremendously varied Indian fare. These days a number of top hoteliers and restaurateurs have gone regional, digging deep into India's rich culinary history to find authentic dishes to serve in stylish surroundings. It's worth a splurge or two ($20 to $60 for two) to try some of the rarely prepared recipes. They might be cuisines of the old newabs cooked in casseroles and crowned by crusts, or unusual fish or vegetarian preparations in delicious sauces fragrant with subtle herbs and spices.

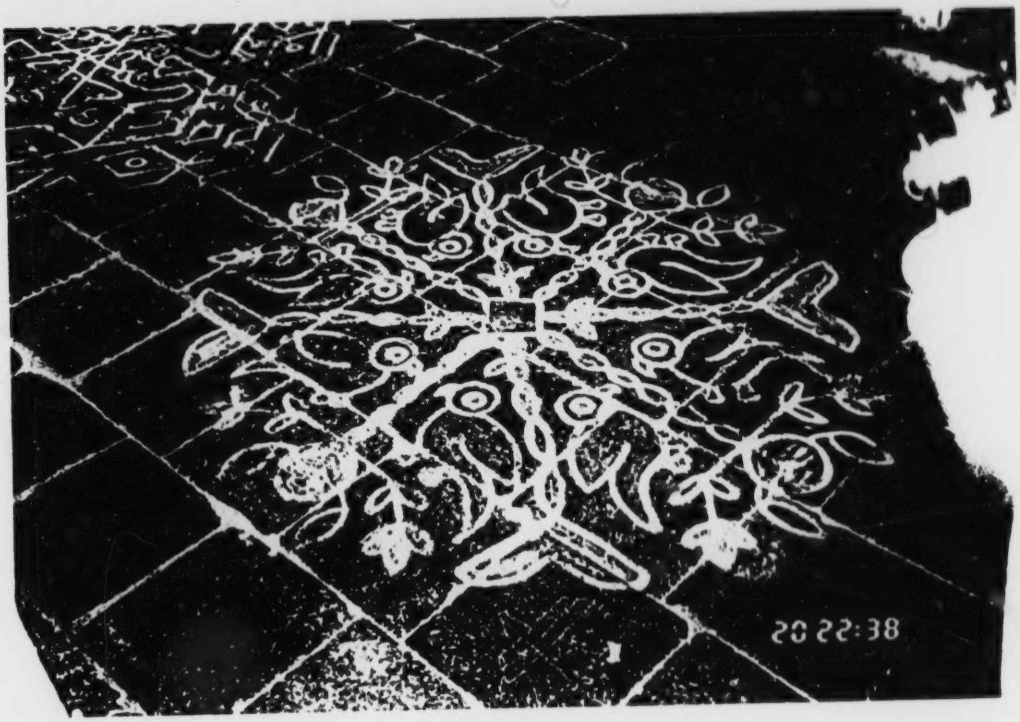
Among the simplest of all Indian eateries is the dhaba, meaning roadside village cafe, somewhat akin to the U.S. truck stop cafe. And while the old legend is not necessarily true that in America truckers know the best wayside places to eat, in India they insist it is positively so—"For authentic North Indian food, go to a dhaba," visitors are often told. But there are dhabas and then there are dhabas; the authentic, whether as truck stops or in city lanes, are hardly hygienic. But now in some major cities dhaba-visiting is much easier; they've brought the dhabas to people like you and me in the guise of restaurants that strive to create authentic truck stop atmosphere and typical foods safely prepared, and I've mentioned them in the chapters that follow.

In most restaurants, you will be served by gracious waiters (bearers) at tables with plates and gleaming flatware. In traditional restaurants, you will get the same efficient service, but instead of plates there will be a banana leaf or a thali (a brass, stainless-steel, or bell-metal platter) to hold all your foods. Porcelain plates, which contain bone ash, are not acceptable to orthodox Hindus. Banana leaves are further washed with water at the table—a step you may wish to forgo if you are concerned about the water—before foods are placed on it.

On thalis, little metal bowls called katoris hold portions of each of your foods—vegetable mixtures, or meat, fish, or chicken curry, dal (lentils), raita (yogurt with chopped vegetables), achar (pickles), and papads (cracker bread) will be placed around the outer rim, while the center is crowned with a snowy mound of rice or wheat puris or both. Traditionally, there were rules about the placement of dishes, but these have been relaxed over the years. Water, however, is placed to the left, not the right, and is the traditional drink with an Indian meal. Order it bottled or boiled, if in doubt. Beer and wine are not served with these Indian meals, but in sophisticated restaurants you can order them.

After washing your hands at the tap, you eat the food with the fingers of your right hand only, which is quite an art in itself. The best technique is to take a little of the dry food such as rice or bread and use it to scoop up the less solid foods like curry or dal. You might also pour some dal on your rice to make a workable combination. In the north of India, only the tips of the fingers are used; in the south, more of the hand is employed, including the palm. In the western region, wheat is eaten before the rice is served, although it's hardly necessary for you to worry about regional techniques. Your main concern will be to eat as neatly as possible without getting your meal all over yourself.

⑥ Rice grain and lime powder designs "Rangoli"



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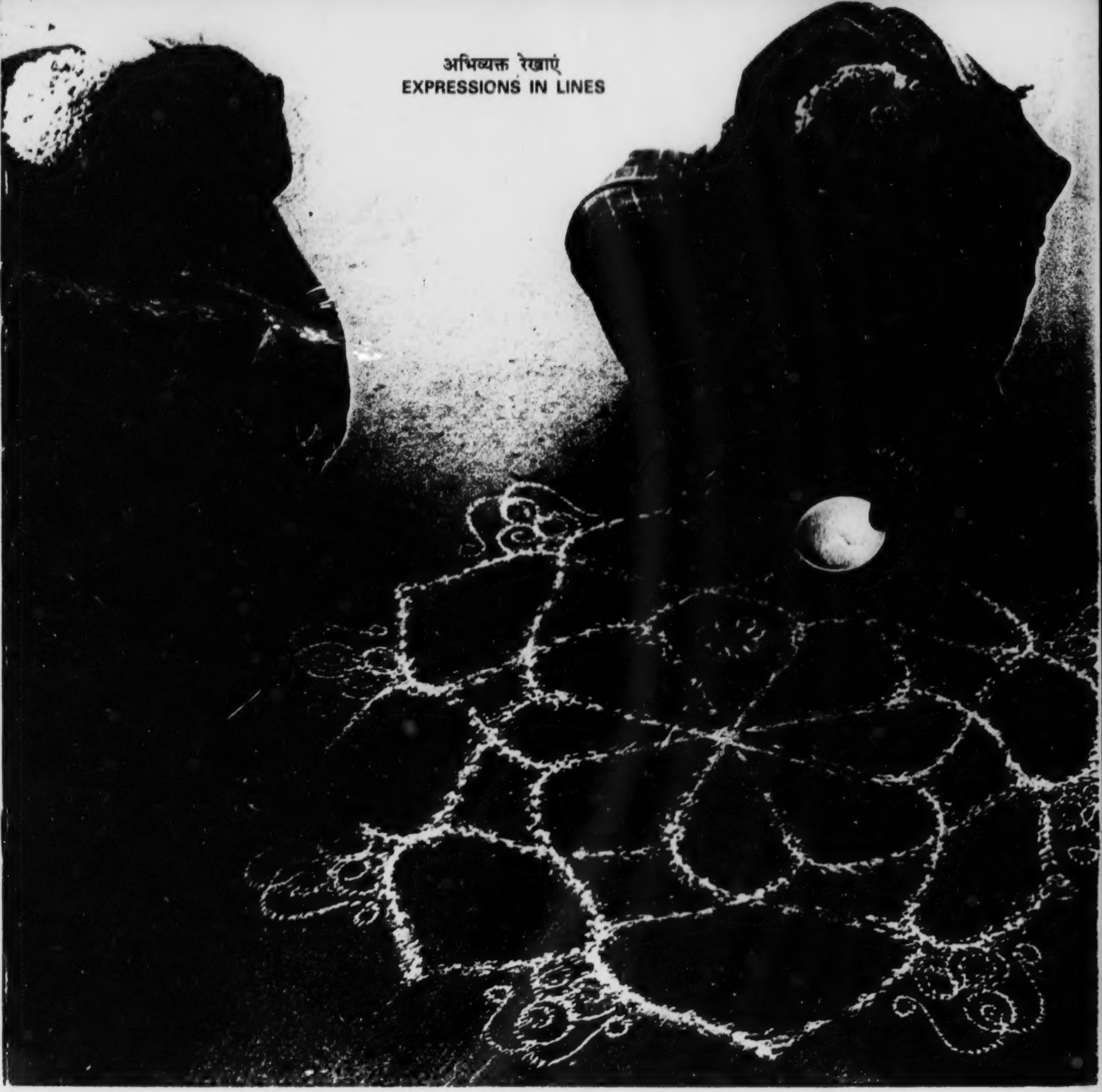

अभिव्यक्त रेखाएं
EXPRESSIONS IN LINES

⑥ Rice and lime powder designs

# अभिव्यक्त रेखाएं

क्षणिक पैकेज में, केन्द्र रंगोली का एक लघु संग्रह प्रस्तुत कर रहा है। इसका उद्देश्य स्कूल त्रों और अध्यापकों को, रचनात्मक अभिव्यक्ति को दिनचर्या का एक हिस्सा बनाने और र-पीढ़ी चली आ रही अलंकृत रंगोली की बनावट का आनन्द परस्पर अनुभव करने हेतु करना है।

बनाने के लिए विभिन्न विधियां प्रचलित हैं। आमतौर पर रंगोली खुले हाथ से बनाई जाती कार जैसे-जैसे रंगोली बनाता जाता है, उसका सही आकार विकसित होता जाता है। इसलिए केंद्र में एक बिंदु बनाकर शुरू की जाती है और फिर यह रंगोली ज्यामितीय आकारों के नमूनों जैसे वृत्त और वर्ग, त्रिकोण, सीधी और वक्र रेखाओं में विकसित होती है। यह न का एक स्वाभाविक तरीका है, जिसकी शुरूआत केंद्र से होती है, और एक ही नमूने को दोहराए जाने पर रंगोली विस्तारित होती जाती है।

कूल के अध्यापकों और छात्रों को भारत की सांस्कृतिक विरासत के इतिहास की जानकारी रने हेतु विविध प्रशिक्षण कार्यक्रम आयोजित करता है। परंपरागत शिल्प शैलियों में क्रियात्मक ताएं-प्रशिक्षण का एक महत्वपूर्ण भाग हैं। रचनात्मक कार्य में सम्मिलित होने से, प्रशिक्षण ों में भाग लेने वाले अध्यापकों और छात्रों को, हमारी सांस्कृतिक परंपराओं के सूक्ष्म पहलुओं ने में और उनकी सराहना करने में सहायता मिलती है।

ोर भित्ति अलंकरण में क्रियात्मक कक्षाएं हमारे प्रशिक्षण कार्यक्रमों का एक अनिवार्य हिस्सा है। यह सर्वविदित है कि रंगोली देश के सभी भागों में प्रचलित है। रंगोलियों में प्रयुक्त ोर नमूने, संबंधित प्रदेश की जानकारी प्रदान करते हैं। रंगोलियां विविध प्रकार की होती अपने स्वरूप तथा विषय वस्तु में भिन्नता लिए होती हैं, पर फिर भी कुछ अनिवार्य तत्वों में, सभी प्रकार की रंगोलियां अपने मूल में एक समानता प्रदर्शित करती हैं। यह कला शिष्ट योग्यता प्राप्त कलाकार या विशेषज्ञ द्वारा बनाई गई नहीं है, वरन् यह सामान्य जन सहज अभिव्यक्ति है और दैनिक जीवन का एक अनिवार्य भाग है।

विविध भागों में प्रचलित रंगोलियों का अध्ययन करने पर उनकी रचनात्मकता की प्रकृति ति को समझा जा सकता है। सुबह-सुबह, घर को साफ किया जाता है, घर के अंदर और की धूल और गंदगी को धो कर हटाया जाता है और जहां पर संभव हो, जमीन को ताज़ी ीपा जाता है। प्रवेश द्वार पर एक रंगोली बनाई जाती है। इस प्रकार रंगोली बनाना प्रतिदिन ार्य का एक अनिवार्य हिस्सा है। ज़मीन और दीवारों पर अंकित परिकल्पनाएं (डिजाईन), सन्नता और कुशलता का संदेश व्यक्त करते हैं। रंगोली से की गई सजावट स्थाई रूप ती, न ही इसको बनाने के पीछे डिजाईन (परिकल्पना) को सुरक्षित रखने का विचार होता

## EXPRESSIONS IN LINES

In this educational package, the Centre presents a small collection of floor designs. The purpose is to inspire school teachers and students to make creative expression a part of their daily life and to share the joy of decorative floor designs which have been passed on from generation to generation.

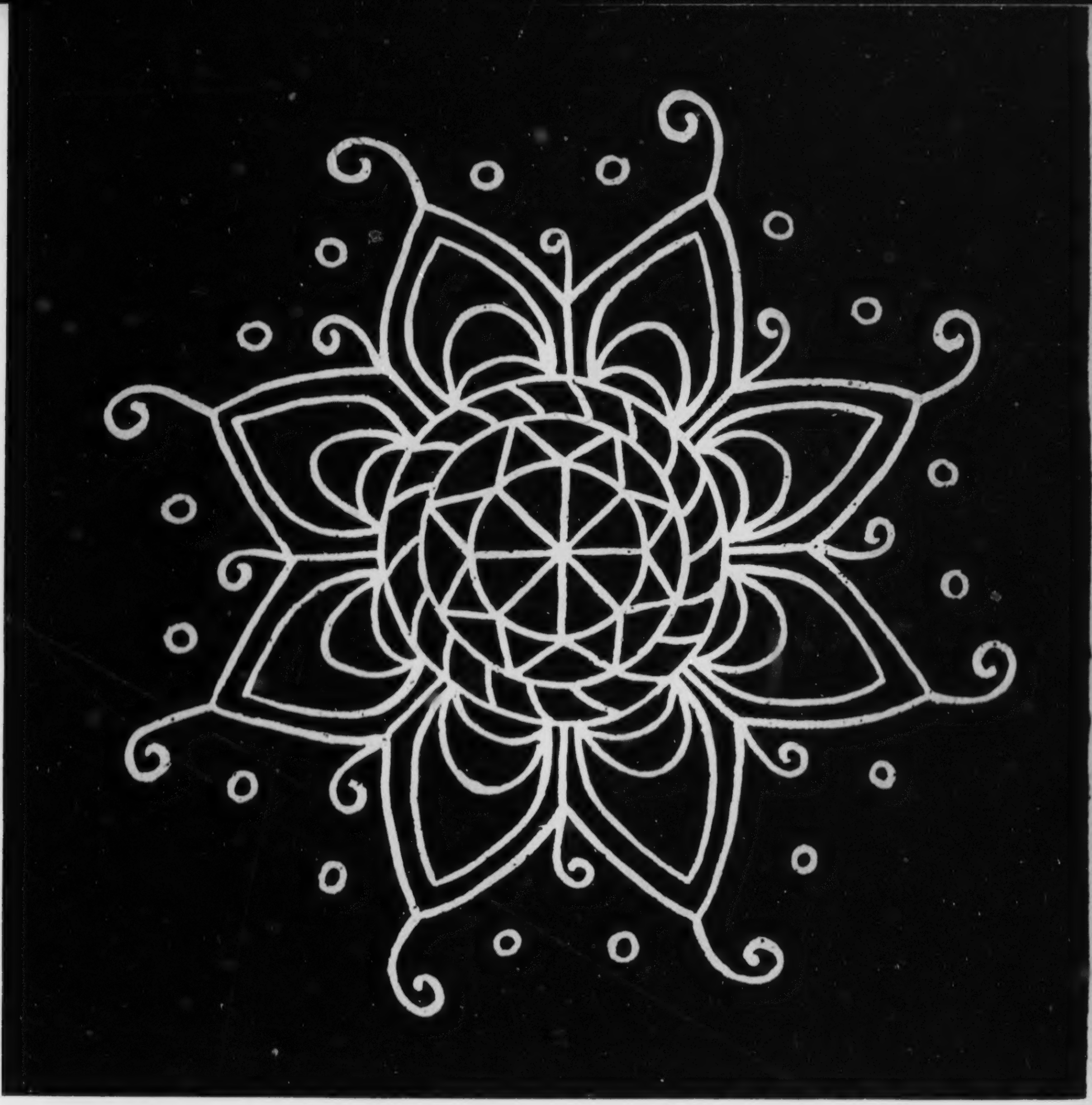
A variety of techniques are prevalent for making the designs. Generally, the designs are made freehand, where the artist evolves the form as the work is in progress. Hence, the design, beginning at the centre with a dot expands in concentric patterns of geometrical shapes of circles, squares, triangles, straight lines and curves. It is a natural way of drawing, beginning at the centre, growing larger with each repetition of a pattern.

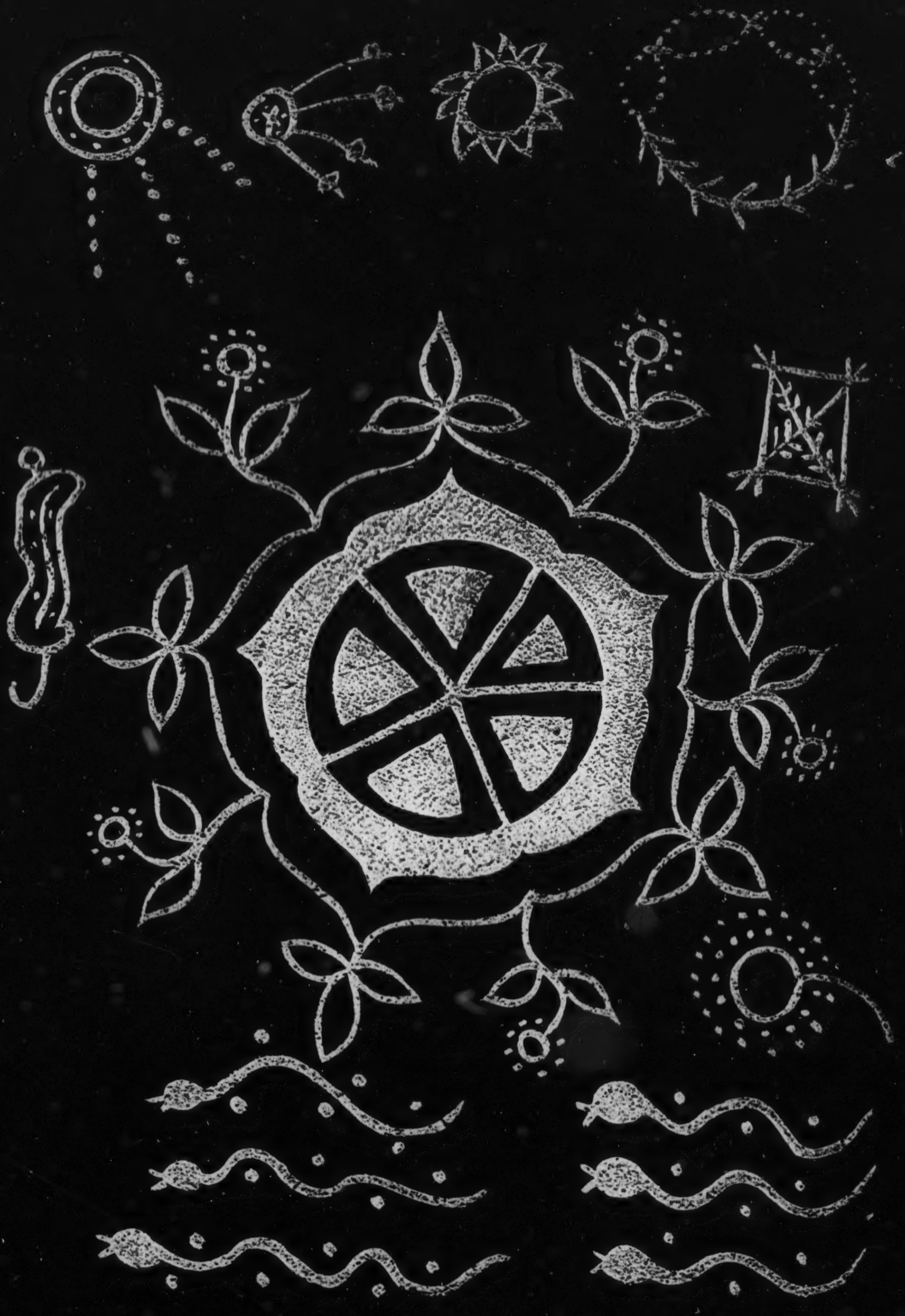
The Centre organises a variety of training programmes for school teachers and students to provide them with knowledge of the history of India's cultural heritage. Practical workshops in traditional crafts form an important aspect of the training. Involvement in creative work further helps the participants in understanding and appreciating the finer aspects of our cultural traditions.

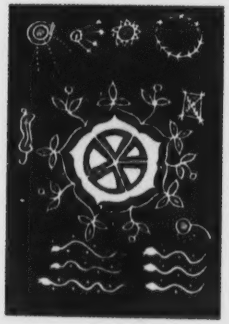
Practical classes in floor and wall designs is one activity that has become an essential part of our training programmes. It is widely known that floor designs are popular in all parts of the country. The symbols and patterns used in such designs provide knowledge of the region to which they belong. Floor designs are varied and diverse in form and content. Yet they display an underlying unity in some essential elements. This art is not created by a specialized artist or expert but is a spontaneous expression of the common people and an integral part of everyday life.

The ethos and spirit of creativity can be understood by studying floor designs of various parts of India. Early morning, the house is cleaned, the area in and around the house is washed of dust and dirt and, wherever possible, coated with fresh mudwash. A floor design is then made at the entrance. The making of the floor design is thus an essential part of everyday household routine. Designs on floors and walls convey the message of happiness and well being of the household. Floor decorations are not meant to be permanent; the idea is not to preserve the design; it is meant to be made every day and hence there are different designs for each occasion, each season and each festival. The non-permanent aspect of floor designs is an unique feature of this art, a visual portrayal of the belief that human beings will always create and make their world a more beautiful place.

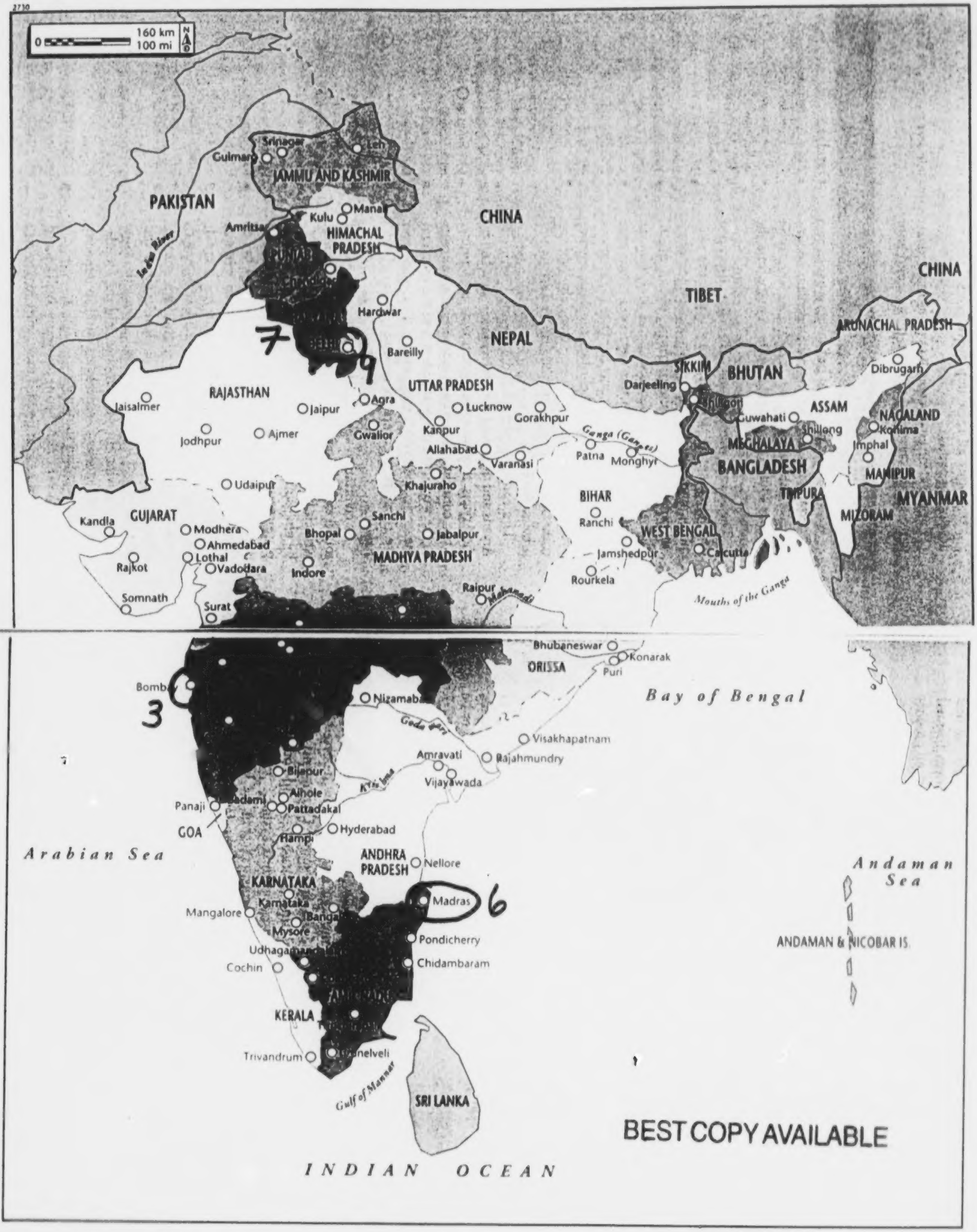
The design is made with dry white chalk or lime powder or with a net mixture of rice powder and lime as in south India. Lime acts as a disinfectant and keeps ants and termites away. It is used both for its utility and for creating beautiful lines. The brightness and purity of the white colour on a clean ground or wall are also part of the symbolism of the entire design. Since all the components are of natural material, the colours do not stain the floor and can be easily erased.







8. On religious occasions like Nagpanchami, which is dedicated to Shesh Nag, symbolic *alpana* floor decorations are commonly made in West Bengal homes. Portraying serpent figures alongside other geometrical and floral motifs, this design is made with rice paste or white chalk.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BEST COPY AVAILABLE

Taken from Frommer's: India on $45 a Day 37A

Rakshabandhan
⑦ Typical day for giving sweets to brother or other important men in one's life.

August 6, 1998

THE TIMES OF INDIA, NEW DELHI

**INNER SPACE**

Discourses on religion and Philosophy

# The meaning of Rakshabandhan

We observe Friendship Day and Valentine's Day, indulge in merry making and commercialisation. But their spirit mustn't be lost. However, days of greater significance such as Mother's Day and Father's Day are not in the limelight! But we do have our own special days with myth and tradition behind them. An example from north India is *Rakshabandhan* which falls on August 8th this year. It has come to be observed only by sisters. It's a loving day for brothers and male cousins.

Dr Lokesh Chandra, director of the International Academy of Indian Culture, says, "*Rakshabandhan* (from the Sanskrit root *raksh* meaning to protect) in contemporary practice is a sanctified thread, or *rakhi*, tied by a sister on her brother's right wrist, seeking his protection. According to mythology, when Lord Indra was fighting demons or *asuras*, his wife tied a *rakhi* on his wrist."

Brahma Kumari Shukla says, "It was because of the power of goddess Indrani's *rakhi* that the gods won the day."

*The Book of Hindu Festivals* (UBS Publishers) says, "*Rakshabandhan* falls in the month of *Shravan* on *Purnima* or the day of the full moon, according to the *Vikram Samvat*. According to the Christian calendar, this festival falls either in July or August."

Dr Chandra continues, "In ancient Hindu India, the royal chaplain used to tie this thread on the wrist of the king, and all those present in the court —including *sudras* (meaning those who tend cattle). In Buddhist countries such as Cambodia and Thailand, monks tie such a thread on the king's wrist. The sister-brother custom took shape in the medieval period because of foreign invasions."

The *History of Dharmasastra* (Oriental Research institute, Pune) says the thread is to be tied on the afternoon of *Purnima*. In the Konkan and Malabar regions, the Muslims and Parsis offer flowers and coconuts to the sea."

The *Encyclopaedia of Indian Culture* (Sterling Publishers) says, "A *Rakhi* could be sent by a maiden to any person addressed as a brother, but in times of grave danger it implied immediate help. Mughal emperor Humayun received a *rakhi* from queen Karnavati of Chittor when her kingdom was invaded, and rushed to her rescue from Bengal (but perhaps was too late to help). Akbar and Jehangir also accepted this practice."

The *Classical Dictionary of India* (Oriental Publishers) mentions Colonel Tod's annals of Rajasthan, and the "delicate relationship that this bond established between the fair sex and the cavaliers of Rajasthan."

Brahma Kumari Shukla adds, "Alexander had received a *rakhi* from king Puru (or Porus') wife, Brahmin priests tie *rakhis* on the wrists of their *yajmans* or patrons. But who can offer blanket protection except incorporeal God? Meditate on Him through Rajyoga."

*(Dr Chandra is a PhD in Vedic Studies from Utrecht, the Netherlands).*

**Kshemendra Upadhyaya**

(9)

# City to host mango festival from July 10

**EXPRESS NEWS SERVICE**
NEW DELHI, JULY 8

MORE than 550 varieties of mangoes from various parts of the country and abroad would be on display during the three-day 10th Mango Festival which will begin in the Capital from July 10.

Addressing a press conference today, Delhi Tourism and Labour Minister S.P. Ratawal said that the high-point of the festival this year would be the emphasis on the cultural traditions revolving around mangoes. This would include folk tales on mangoes (Kisse Aam Ke) by Kissago, folk songs on mangoes by 'Kajri', singers from UP and Bihar and a mushaira on mangoes.

The festival will also have a culinary contest in which chefs of all the five-star hotels in the city would participate.

The chefs would cook on the spot and share the recipes of various mango preparations.

The special international stall at the Talkatora stadium would have participants from Pakistan, Mexico, Guatemala, Brazil and some other South American countries.

Ratawal added that there would be special stall where farmers can get information on the latest research on growing mangoes. Mango saplings will be made available to them at nominal prices to encourage farmers to grow mangoes.

Pointing out that India was the biggest mango-growing country in the world, Ratawal said that it accounted for about 55 per cent of the total production. Out of the 1,100 sub-varieties of about 41 varieties of mangoes, more than 1,000 were grown in the country.

⑩ Festivals involving sweets

- **Pongal.** In Madurai, Thanjavur, and Tiruchirapalli. There are special foods, and in some places you can see an extraordinary bullfight where money is tied to the horns of the animals and young boys pull it off.

March

- **Holi.** Very spirited. Mainly celebrated in the north. It's the time when everyone throws colored water and powder on each other and everything in sight. It symbolizes tarnishing the old and beginning the new—wear your oldest clothes.

June

- **Cart Festival.** When the gods go on their summer holiday, thousands go to Puri to see them off down "Main Street."

August

- **Onam.** Kerala's harvest festival; includes a great "snake" boat race through the lagoons.

October/November

- **Dussehra.** In the fall (October or November), commemorates the killing of the demon King Ravana by Rama and symbolizes the destruction of evil by good. It differs from place to place. For example, in Delhi the evil king literally gets blown up: Giant effigies are stuffed with firecrackers and set off. In Calcutta it's called Durga Puja, and pandals (displays) of traditional scenes bring out the best in the bustling city. In Kulu, gods are paraded on special palanquins with musical accompaniment.
- **Diwali.** Very pretty. Every house, village, and public building is lit with tiny flickering oil lamps (although the public buildings sometimes use electricity). The goddess of prosperity, Lakshmi, reputedly comes to call on lighted homes and scorns those that are not. Gifts are exchanged; mountains of sweets, mostly silver-wrapped, appear in the bazaars.
- **Pushkar.** A fair in Rajasthan, in November, where there is camel racing and spirited folk dancing.

December

- **Vaikunta/Ekadasi.** Procession of beautifully adorned gods from Srirangam's Temple in Tiruchirapalli.
- **Christmas.** Gift-giving goes on almost everywhere, even among non-Christians. In Goa and Kerala, where there are large numbers of Christians, the celebration is carried out traditionally.

Frommers: India on $45 a Day.

(10) Diwali and the giving of sweets.

## Snacking in Delhi

There are countless snack stalls in Delhi, but for the some of the best, head to Bengali Market—a Rs 25 (83¢) scooter ricksha ride from Connaught Place—and **Bhim Sain's Sweet House,** where a great array of sweets and savory dishes are displayed like jewels in glass cases. Settle into a booth and enjoy desserts such as halwa (made of fruit, nuts, or vegetables) and gulab jamun (cheese balls in rosewater syrup) for Rs 45 ($1.50) per generous helping, and slightly less expensive snacks such as chaat (lentils and grains seasoned with tamarind) and samosas (turnovers filled with vegetables or meat) and puffy puris. During Diwali when giving sweets is a tradition, customers queue up for hours so prized are gifts from this shop. Open daily 7:30am to 10:30pm.

Another famous and equally good sweet shop, **Nathus,** is directly across from Bhim Sain's.

If you've got a couple dollars and you're in the mood for a little nibble, grab a motorized ricksha in Connaught area for a 3-kilometer ride—Rs 20 (66¢) or Rs 25 (83¢)—to the **Anjlika Pastry Shop** in Ajamul Khan Market, Karol Bagh, among the best known of the many confectioners here for a piping hot puri or an outrageously rich sweet.

Feeling like a nosh in the center of town? Go to **Shah Jahan Road,** not far from The Taj Mahal and The Claridges Hotels, and stop at the chaat walla's (snack seller's) cart near the Union Service Commission. Most people nearby know it, and many people make a point to stop here whenever they're in the neighborhood. For about Rs 20 to Rs 30 (60¢ to $1) you can get a lot chaat (grains, lentils with spices) and probably a chat with the other customers.

The most popular snack sellers stalls **outside the Indian Oil Building** features Bombay's favorite snack, bhel-puri (puffed rice, spiced grains, chutney), served in little individual throwaway bowls made of banana leaves. (Do not eat them from plates, which are not thoroughly washed.) For a few paise you can have a real spicy treat.

After a bargaining session at Chandni Chowk, or any time you're in Old Delhi, stop for refreshment at Delhi's only tea-tasting tea parlor, **Aap Ki Pasand** (meaning "as you like it"), opposite Golcha Cinema, 15 Netaji Subhash Marg (☎ 3260376), where owner Sanjay Kapur is Delhi's only tea taster. Choose from 20 different kinds of tea. Is it from Assam, Darjeeling, the Nilgiri Hills? You'd have to check the label to make sure, but Kapur, with years of experience in tea tasting, can sip and tell. Your own taste buds will tell you you're onto something deliciously different with badam Kashmiri kahwa (almond-and-spice flavored tea), or when you sample the fragrant Darjeeling clonal leaves and buds that go into an Iced Tea Holiday. You can get a cup of tea or a neatly done-up drawstring packet of tea for sipping or gifting later on. Teas can run up to $10 per 100 grams for the finest. Many herbal teas, such as chamomile and mint, are available as well. Open Monday through Saturday 10am to 2pm, 2:30 to 6pm; tea service, 10:30am to 1:45pm, 2:30 to 5:45pm. Teas carrying the Sancha label are packaged by this shop and sold at Cottage Industries Emporium (Janpath) and ITDC's duty-free airport shop.

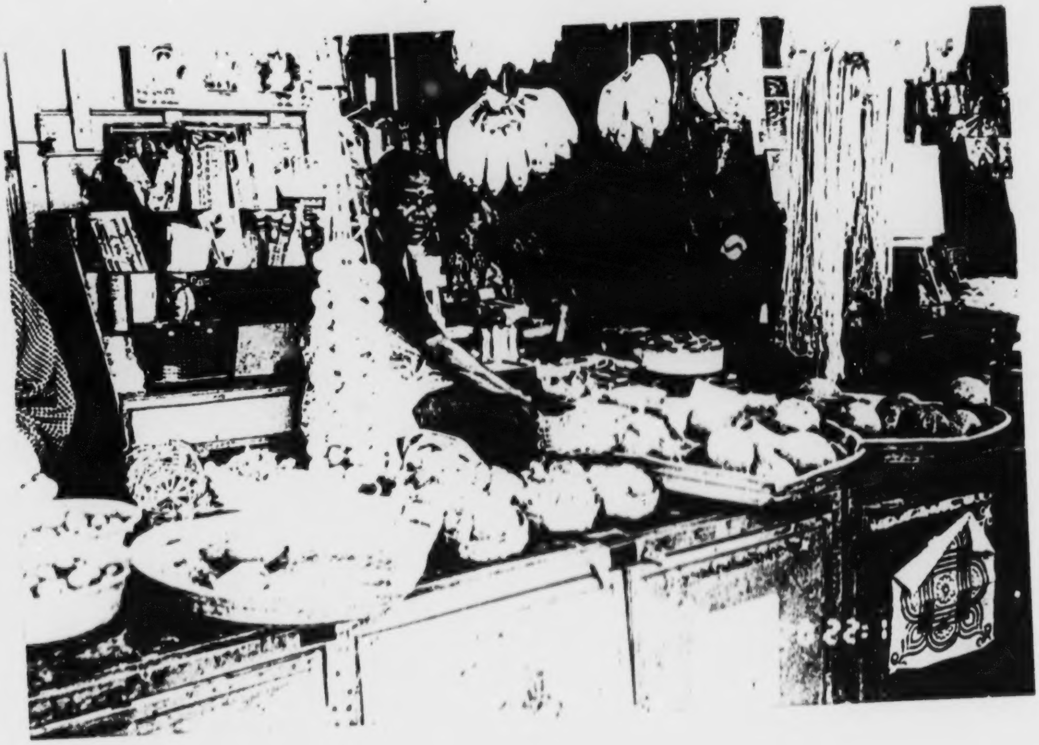
For Western pastries or finger sandwiches, try **Wenger's,** A-16 Connaught Place (☎ 3324373), where an entire chocolate truffle cake costs Rs 220 ($7.33), and a strawberry tart is or a dainty cheese sandwich costs Rs 20 (66¢).

For pleasant refreshment in the center of town, it's hard to beat tea or coffee with assorted sandwiches and cakes on the **Tea Terrace** in the cool and leafy garden at the Imperial Hotel, Janpath (☎ 3325332). It's pricey, though, around Rs 50 (1.66) to 150 ($3) depending on what you order.

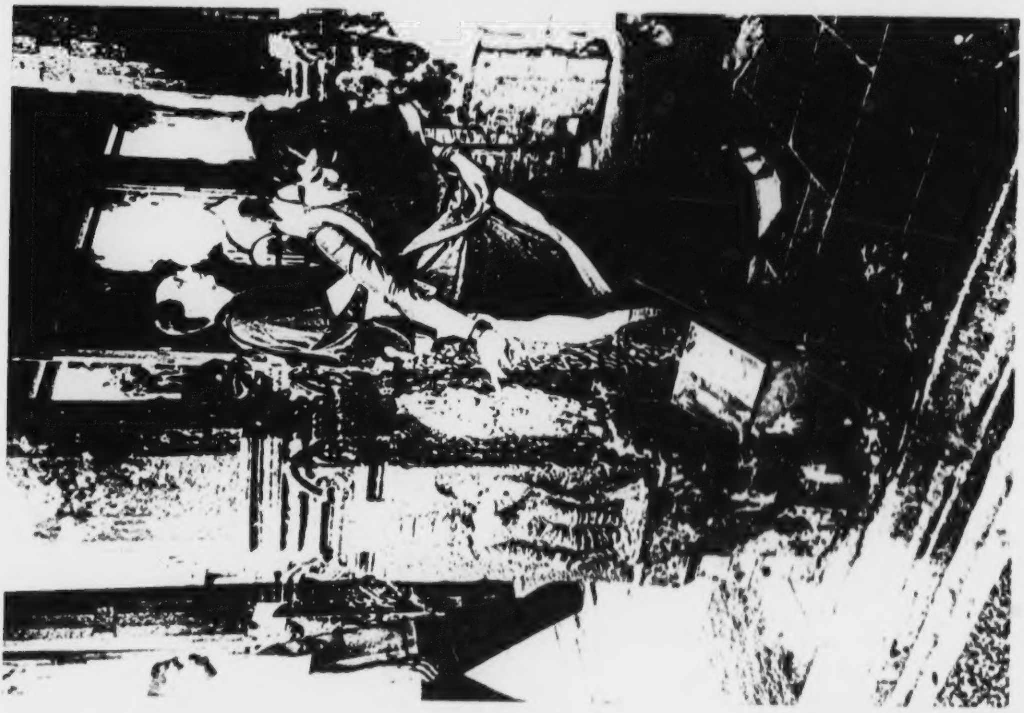
Frommers: India on $45 a Day

BEST COPY AVAILABLE

⑩ Vendors selling sweets outside temple



sweets being offered at small shrine



(10) Description of ceremony involving offerings of food to Ganesh. From Hinduism by Louis Renou

### 6. The Tantric "Full Initiation" Ceremony, According to the Kaula School

In the three ages[a] this rite was a great secret; men then used to perform it in all secrecy, and thus attained Liberation.

When the Kali age[b] prevails, the followers of Kula rite[c] should declare themselves as such, and, whether in the night or the day, should openly be initiated.

The Guru[c] should, the day before the initiation, worship Gaṇeśa with offerings, according to his ability for the removal of all obstacles. Adding successively six long vowels to the Mūla *mantra*,[d] Nyāsa[e] on the six parts of the body should be performed, and after doing the three breath-exercises let Gaṇeśa[f] be meditated upon.

Meditate on Gaṇeśa as of the colour of vermilion, having three eyes, a large belly, holding in his lotus-hands the conch, the noose, the elephant-goad, and the sign of blessing. His great trunk is adorned with the jar of wine which it holds. On his forehead shines the young Moon. He has the head of the King of elephants; his cheeks are constantly bathed in wine. His body is adorned with the coils of the King of servants. He is dressed in red raiment, and his body is smeared with scented ointments.

Having thus meditated upon Gaṇeśa, he should be worshipped with mental offerings, and then the protective powers of the seat should be worshipped. At the end, the Lotus-seat itself should be worshipped.

Meditating on Gaṇeśa once again, he should be worshipped with offerings of the Five-Elements (wine, meat, fish, parched food, and woman). After, the worshipper should perform the preliminary ceremony, and then entertain the Kaulas versed in divine knowledge with the Five-Elements. The next day, having bathed and performed his ordinary daily duties, he should give away sesamum-seed and gold for the destruction of all sins from his birth. Then, having worshipped Brahmā, Viṣṇu, Śiva, and the nine Planets, as also the sixteen divine Mothers, he should make a mark like the lower half of an ellipse.

He should ask permission of the spiritual Preceptor; then make a solemn declaration for the removal of all obstacles and for the attainment of long life, prosperity, strength, and good health.

He should do honour to the *guru*, by presenting him with clothes and jewels, and invite him to perform the rite.

The *guru* should then make with earth an altar four fingers in height and measuring one and a half cubits either way in a beautiful room painted with red earth, etc., decorated with pictures, flags, fruits, and leaves, and strings of small bells.

The room should have a beautiful ceiling-cloth, lighted with lines of lamps fed with ghee to dispel all traces of darkness, and should be scented with burning camphor, incense-sticks, and incense, and ornamented with fans, fly-whisks, the tail feathers of the peacock, and mirrors, etc., and then he should with rice, powdered and coloured yellow, red, black, white, and dark blue draw the circle called *Sarvato-bhadra*.

Then each person should perform the rite preparatory to mental worship, according to his own ritual, and then, should purify the Five-Elements with the formula previously mentioned. After the Five-Elements have been purified, the jar, which must be either of gold or silver or copper or earth, should be placed on the circle. It should be washed with the Weapon-formula and smeared with curd, and then a vermilion mark should be placed on it.

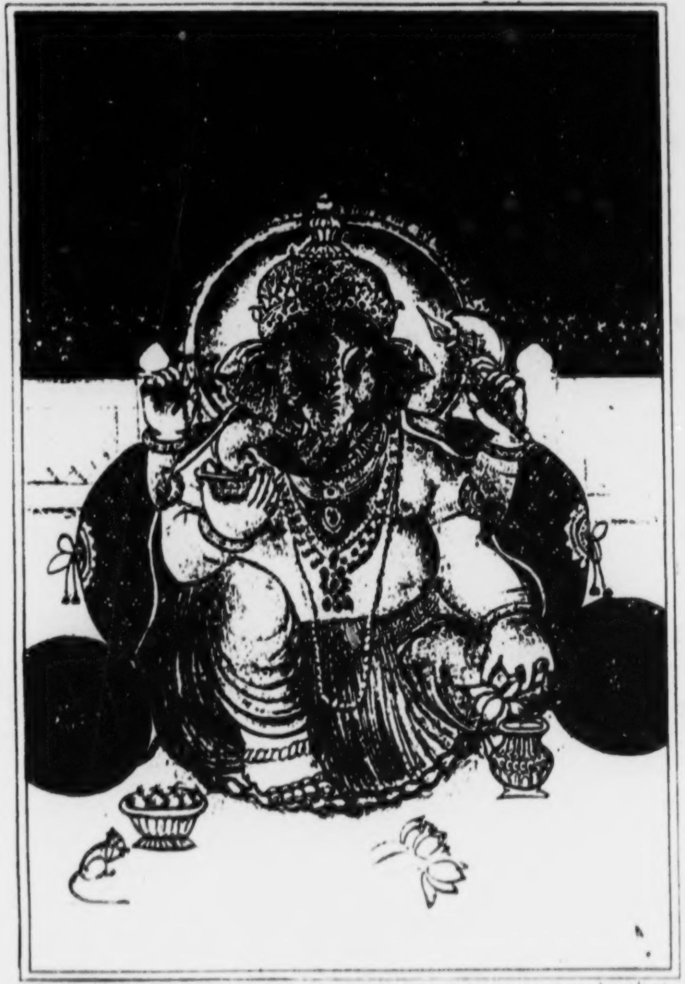
He should then recite three times the letters of the alphabet, and fill the jar with wine or water from some holy place, or with ordinary pure water, and then throw into the jar nine gems or a piece of gold.

The merciful *guru* should then place over the mouth of the jar a leafy branch of a Fig-tree, etc.

He should then place on the leafy branches a gold, silver, copper, or earthen platter with fruits and sundried rice. Then two pieces of cloth should be tied to the neck of the jar. When worshipping Śakti the cloth should be of a red colour, and in the worship of Śiva and Viṣṇu it should be white.

⑩ Ganesh - Eating and holding sweets.

"Lord Ganesh"



*India's Gods*

India

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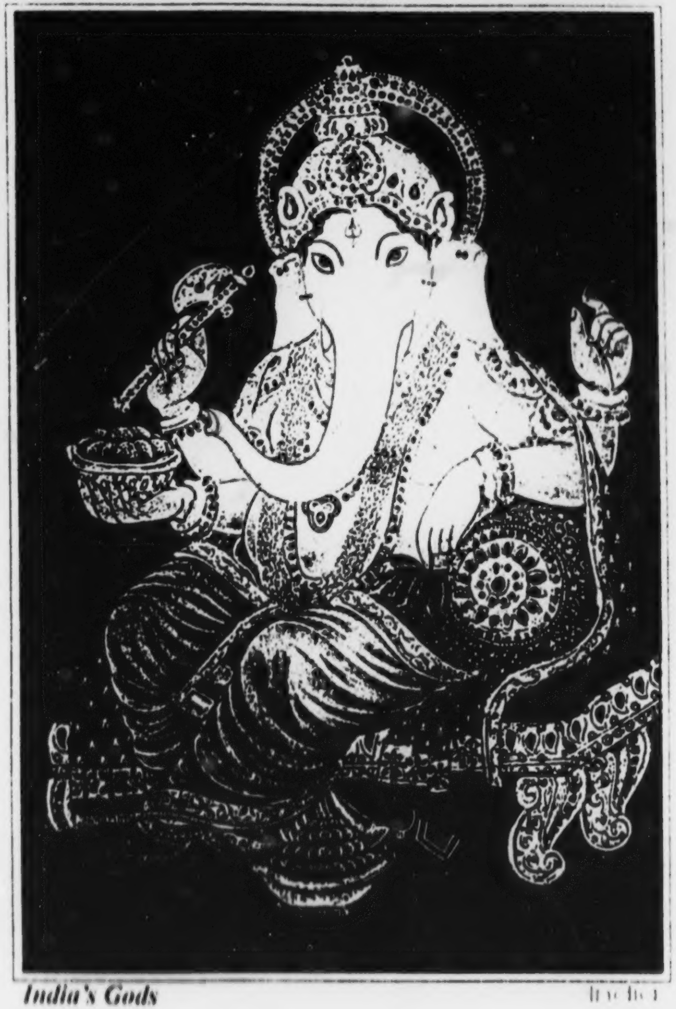
"Lord Ganesh"



*India's Gods*

India

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## Indian Food

Objective / Aim: For social studies students to list and describe various typical foods of India and to list characteristics of the Indian people which can be inferred based on this investigation of Indian foods and cooking.

Materials: 1. Samples of Indian food . Depending on school restrictions and availability teachers can bring simple samples of various Indians foods such as nan, papadum, paratha, chapati, dal, seasoned rice, vegetable curries, pickles, and desserts such as halwa or typical Indian dry snacks. These can be purchased at Indian groceries, many health food stores, or restaurants or prepared (recipes are included).

2. Class copies of a sample restaurant menu

3. Samples of Indian spices and common ingredients (see attached list).

4. Cookbook recipes and food articles

Vocabulary: vegetarian, non-vegetarian, thali, continental, croissant, fettuccini, canneloni, aerated, buffet, a 'la carte, kebab, pomfret, ragout, muesli, names of Indian food dishes and spices (see attached list)

Motivation: Students will come into class. Food will be covered under a front table. Depending on resources, food might be arranged in traditional thali style. Discussion will begin by telling class that in today's lesson the class will be traveling to India to learn about the foods people eat. Have students guess what they think might be some Indian foods and suggest that some foods are similar to ours. Indian music could be played during sampling time.

Do Now / Strategies : 1. After several minutes of guessing, distribute a copy of the menu and vocabulary list. Allow students to read it on their own and ask them to list all foods that they see which are similar to ours. Ask them also to list foods that they are not familiar with. Then ask them to pick out different foods that they might like to taste.

2. Distribute small samples of food for tasting. Encourage but don't force students to eat a sample of all items. Explain that this is part of the experience of visiting another country. Have them write names of foods they are sampling and short reactions about eating the food while doing so. Discuss vegetarian and non-vegetarian items defining the vocabulary, and emphasizing that many people are vegetarians in India.

3. Distribute lists of explanations of foods, ingredients, and spices common in Indian cooking. Pass around egg cartons filled with small samples of some spices. Tell students what spices and ingredients gave certain foods they tasted their particular flavor. Students should be listing names of spices and writing small descriptions and reactions to flavors. Explain that use of spices and ingredients differs from region to region in Indian and that India provides many of these spices to other countries throughout the world.

4. Ask students to write questions they have about Indian food after having tasted it and to write down what they have learned about Indian people and India based on their foods.

A discussion of both topics should follow. If students have not noted certain qualities the teacher can list on the board such items as :

There are vegetarians and non-vegetarians in India.
The people enjoy spicy foods.
People have much variety in the types of food they eat.
Certain foods that people in America eat are the same as Indian foods.
(specific foods should be named).
People take lots of time preparing foods.

Questions students have about Indian food should be recorded and discussed as time permits.

Evaluation: Students will be asked to write a diary entry, pretending they visited an Indian home and were served an Indian dinner. They should tell what they ate and explain what they enjoyed and did not enjoy about the meal. Students should be asked to use a minimun of 10 new vocabulary words. They should also summarize what they learned about their "host" from the food they served and any questions the meal might have brought to their mind about Indian people,

## Indian Foods

1. Make a list of foods you think Indian people eat.

2. As you read the menu from an Indian restaurant and hotel, make two lists. One should be of foods you are familiar with or eat yourself. The other should be of foods you have never tasted or known about.

| Similar Foods | New Foods |
|---|---|
| | |
| | |
| | |
| | |
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| | |
| | |

3. As you taste some foods. list their names, describe them, and tell what you experience while eating them.

| Name of Food | Description | Reaction |
|---|---|---|
| | | |
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4. As you look at and smell the spices and common ingredients, name them and write a description of them. Then tell which foods you tasted had this spice in them.

| Name of Spice | Description | Foods Used In |
|---|---|---|

5. What have you learned about Indian people based on this lesson?

6. What questions do you still have about Indian food?

## Vocabulary

1. vegetarian-a person who eats a diet made up chiefly of vegetables, grains, fruits, nuts, seeds, and occassionally dairy products such as milk and cheese.

2. non - vegetarian - a person who eats the above diet with the addition of meat - beef, lamb chicken, pork, fish, eggs, and dairy products.

3. thali - a metal plate on which a type of Indian meal is served. Small portions of many types of food are served in small metal bowls on the plates in a circle, with rice and / or cooked wheat in the center.

4. continental - something which comes from Europe

5. croissant - a rich crescent shaped roll made of pastry dough

6. fettuccini- narrow strips of pasta

7. canneloni -an Italian pasta dish of large stuffed macaroni that is baked and served with a tomato or cream sauce

8. aerated- carbonated (similar to soda water)

9. buffet - a meal at which guests serve themselves from various dishes displayed on a table or sideboard.

10. a'la carte - ordering with a menu with a separate price for each food dish

11. kebab - a dish of small pieces of meat roasted on skewers

12. pomfret -a type of fish

13. ragout -a thick spicy stew of meat and vegetables

14. muesli - a cereal dish made usually of oatmeal, seeds, dried fruits, and nuts

FROM Classic 1000 Indian Recipes

# Glossary

To make the recipes accessible and easy to follow, we have used the English terms for ingredients. Some Indian terms have become anglicised, however, by common use, and you will already be familiar with many of those that do appear. Also, if you are shopping for ingredients in Indian food stores, you may find this checklist of Indian names useful. You will find different spellings of translated Indian names on many products.

### Grains and Lentils

**Barley** jo
**Blackyeye beans** lobhiya
**Chick peas** kabuli channa
**Corn** maki
**Cornflour** maki ka atta
**Red kidney beans** rajma dal
**Flour** maida
**Flour, gram** basin
**Flour, millet** bajre ka atta
**Lentil, red** dal
**Lentil, whole black** mah ki dal
**Lentil, whole green** sabat moong ki hari dal
**Mung beans** moong dal
**Peas, pink split** masoor dal
**Peas, yellow split** arhar dal
**Semolina** sooji
**Vermicelli** seviya

### Fruit

**Apple** seb
**Apricot** khubani
**Banana** kela
**Fig** anjeer
**Grapes** angoor
**Guava** amrud
**Mango** aam
**Orange** santra
**Papaya** papita
**Peaches** aaru
**Pears** nashpati
**Pineapple** ananas
**Pomegranate** annar

### Milk Products

**Paneer** Indian cheese
**Khoyal** solidified milk

### Nuts

**Almond** badam
**Cashew nuts** kaju
**Coconut** nariel
**Groundnut (peanut)** moong-phali
**Pistachio** pista

### Spicing and Flavouring Ingredients

**Aniseed** saunf
**Asafoetida** hing
**Bay leaf** tej patta
**Cardamom, black** bari elaichi
**Cardamom, green** choti elaichi
**Chilli** mirch
**Chilli, green** hari mairch
**Chilli, red** lal mirch
**Cinnamon** dal chini

**Clove** laung
**Coriander (cilantro)** dhaniya
**Coriander (cilantro) leaves** hara dhaniya
**Cumin** jeera
**Curry leaves** meedi neem ki patti
**Fenugreek** methi
**Fenugreek leaves** methi ka patta
**Garlic** lahsun
**Ginger** adrak
**Ginger, dry** sondh
**Jaggery (treacle)** gur
**Mace** javitri
**Mango powder** amchoor
**Mint** hara pudeena
**Nutmeg** jaiphal
**Onion seeds** pyaj ke beej
**Oregano seeds** ajwain
**Parsley** ajmood ka patta
**Pomegranate seeds** anardana
**Poppy seeds** khus-khus
**Raisin/sultana** kismish
**Rose water** gulab water
**Saffron** kesar
**Sesame seeds** til
**Tamarind** imli
**Turmeric** haldi or haldar
**Tymol seeds** ajwain
**Vinegar** sirka

### Vegetables

**Aubergine (eggplant)** bengun or baingan
**Beans** sem
**Beans, French** fansi
**Beetroot (red beet)** chuquander
**Bitter gourd** karela
**Cabbage** bandh gobhi
**Carrot** gazar
**Cauliflower** gobhi
**Celery leaves** ajwain ka patta
**Colocasia** arbi
**Courgette** taroi
**Cucumber** khira
**Gourd, bitter** karela
**Gourd, ridge** taroi
**Gourd, snack** chichinda
**Mushroom** kukar moote or khumb
**Onion** pyaz
**Okra** bhindi
**Peas** matar
**Pepper (bell), green** pahari mirch or bari mirch

**Potato** aloo
**Pumpkin** kaddu
**Radish** mooli
**Spinach** palak
**Turnip** shalgam
**Tomato** tamatar
**Yam** suran

# Seasoning Mixtures and Basic Recipes

A curry is basically a casserole of meat, poultry or vegetables cooked in a masala - a combination of spices in a paste. *Garam masala* literally means 'hot spice', and it is made by roasting and grinding a variety of dried spices to achieve different flavours. The basic art of Indian cooking lies in the careful blending of different spices to yield subtle variations in the flavour of foods. The kitchen shelves of any south Indian home will always have at least two or three instant powders called *podis*. Made from a variety of dals and seasonings, they make a quick instant meal mixed with rice and ghee.

Chillies - both fresh and dried - are an important spice in Indian cooking. The seeds are the hottest part, so remove the seeds if you prefer a milder flavour. Always wash your hands after preparing chillies as the oil from the chilli will sting if you touch your mouth, lips or eyes.

This section also includes the preparation of other basic ingredients, such as tamarind, for use in the recipes.

Yoghurt is used extensively in Indian cuisine, so it is worth making your own. The milk must first be sterilized, so it is easier to use long-life milk, which is already sterile. Fresh milk should be brought to the boil then allowed to cool. Once you have made the first batch, save a tablespoonful to start the second one.

Paneer is Indian cheese, made by curdling milk and leaving it in a muslin cloth (cheesecloth) to strain off the whey.

# Sambars

**Thick and fiery sambars are the first course in any south Indian meal. They are served steaming hot with plain cooked rice and a vegetable accompaniment. Almost any vegetable can be used in a sambar. The tart tamarind juice, besides having a cooling effect, has the unique property of preserving the vitamins of the vegetables cooked in it. Sambar powder can be bought ready-made in an Indian food store, or you can make your own from the recipes on pages 14 and 15.**

## Basic Sambar

Serves 4

75 g/3 oz/½ cup red lentils • 15 ml/1 tbsp oil
5 ml/1 tsp mustard seeds • 2.5 ml/½ tsp asafoetida
2.5 ml/½ tsp fenugreek seeds • 2.5 ml/½ tsp cumin seeds
1 dried red chilli, halved • 2-3 curry leaves • 2 green chillies, halved
225 g/8 oz mixed vegetables, cubed (radish, onion, potato, aubergine (eggplant), courgette (zucchini), green (bell) pepper etc.)
30 ml/2 tbsp tamarind juice • 250 ml/8 fl oz/1 cup water
15 ml/1 tbsp Sambar Powder 2 (page 15)
2.5 ml/½ tsp ground turmeric • salt • 15 ml/1 tbsp rice flour (optional)
30 ml/2 tbsp water (optional) • 15 ml/1 tbsp chopped fresh coriander (cilantro)

**Cook the lentils in boiling water for about 1 hour until tender then drain and set aside. Heat the oil and fry the mustard seeds, asafoetida, fenugreek and cumin seeds, red chilli and curry leaves until the mustard seeds start crackling. Add the green chillies and vegetables and fry for 2 minutes. Add the tamarind juice, water, sambar powder, turmeric and salt, cover and simmer over a low heat until the vegetables are tender. Stir in the cooked lentils and simmer for 5 minutes. If the sambar needs to be thickened, blend the rice flour with the water, stir it into the pan and simmer for a further few minutes. Garnish with coriander and serve hot with rice.**

# Seafood

**Not surprisingly, fish dishes are more popular on the coasts of India where seafood is readily available. The fish purchased in India are very different from those available elsewhere, so these recipes have been adapted to suit Western species. Bengali fish dishes are often cooked in mustard oil. Fish are often cooked with skin, bones and head intact, as this retains the maximum nutritional value and flavour.**

## Fish Curry

Serves 4-6

4 large garlic cloves • 2 onions, cut into chunks
2.5 cm/1 in ginger root, chopped • 50 ml/2 fl oz/3½ fl oz wine vinegar
500 g/18 oz cod or haddock fillets, cut into 5 cm/2 in pieces • 90 ml/6 tbsp oil
**Sauce:** 60 ml/4 tbsp oil • 5 ml/1 tsp mustard seeds
1 onion, finely chopped • 4 cloves • 4 peppercorns
2 bay leaves • 1 black cardamom pod • 1.5 cm/½ in cinnamon stick
5 ml/1 tsp ground roasted cumin • 5 ml/1 tsp ground turmeric
2.5 ml/½ tsp ground red chilli • salt • 225 g/8 oz canned tomatoes
150 ml/¼ pt/⅔ cup natural (plain) yoghurt • 15 ml/1 tbsp sugar
200 ml/7 fl oz/scant 1 cup water
**Garnish:** 2.5 ml/½ tsp garam masala
15 ml/1 tbsp chopped fresh coriander (cilantro) • 1 small green chilli, chopped

**Purée the garlic, onions, ginger and wine vinegar to a smooth paste in a blender or food processor. Marinate the fish in half the paste for 30 minutes. Reserve the other half for the sauce.**

**Make the sauce while the fish is marinating. Heat the oil in a heavy-based pan and fry the mustard seeds until they start crackling. Add the onion and whole spices and fry until golden brown. Mix in the reserved paste and fry for a few minutes until golden brown. Stir in the ground spices and salt then the tomatoes and cook until all the liquid has been absorbed. Add the yoghurt and sugar and cook again until all the liquid has been absorbed and the oil appears on the surface. Add the water, bring to the boil then simmer over a low heat for 5 minutes.**

**Meanwhile, heat the oil and fry the fish over a medium heat for 15 minutes until light brown, turning once or twice. Remove from the pan and place on a serving dish. Pour the sauce over the fish, sprinkle with the garnish ingredients and serve hot with chapatis, rice, dal, raita and a bean and potato dish.**

# Pork

There are few Indian dishes that use pork as it is not eaten by Muslims. However, there are a few pork recipes, such as Goan Portuguese-style Spicy Pork, which was introduced by Portuguese settlers in India.

## Coorgi Pork

Serves 8

1.5 kg/3 lb pork • 30 dried red chillies, ground
12 onions • 250 ml/8 fl oz/1 cup water
15 ml/1 tbsp cumin seeds • 5 ml/1 tsp ground turmeric
15 ml/1 tbsp coriander (cilantro) seeds • 10 ml/2 tsp peppercorns
30 ml/2 tbsp white wine vinegar • 4 boiled potatoes, quartered
salt

**Cut the pork into small pieces and mix with the ground chillies. Leave to stand for 15 minutes then place in a pan. Slice 10 of the onions and add to the pork with the water. Bring to the boil, cover and simmer for 1 hour until the meat is cooked.**

**Grind the remaining onions with the cumin seeds, turmeric, coriander seeds, peppercorns and wine vinegar and stir into the pan. Simmer for a further 15 minutes. Add the potatoes and season to taste with salt. Simmer until heated through. Serve hot with vegetables, papadums and rice.**

## Sundia

Serves 4-6

900 g/2 lb pork, chopped • 5 ml/1 tsp ground turmeric
15 ml/1 tbsp ground coriander (cilantro) • 10 ml/2 tsp chilli powder
30 ml/2 tbsp oil or ghee • 10 ml/2 tsp poppy seeds
100 g/4 oz/⅔ cup red lentils • 2 cardamom pods
6 onions, chopped • 2.5 cm/1 in ginger root, chopped
2 bulbs garlic, chopped • 1 coconut, grated (shredded)
juice of 3 lemons • salt • oil for deep-frying

**Place the pork in a pan with the turmeric, coriander and chilli powder and pour in just enough water to cover. Bring to the boil and simmer gently for about 45 minutes until the meat is tender. Remove the meat and shred it. Heat a little oil or ghee and fry the poppy seeds, lentils and cardamom separately until lightly browned. Add these to the meat with the remaining ingredients and season to taste with salt. Mix together well and shape into balls. Deep-fry in hot oil over a low heat until nicely browned. Serve hot with papadums, rice and curry sauce.**

# Beef

**Since many Indians are vegetarian, cows are not farmed for beef in India. They also have a religious significance, so beef is not as popular as other meats in Indian cuisine. It is used by the Muslim community. The cow is considered by Hindus as a 'mother' because when a mother cannot feed a baby for any reason, then cow's milk is used. However, there are some interesting beef recipes, and you can also adapt some traditional lamb recipes, if you choose.**

## Marinated Beef

Serves 4

300 ml/½ pt/1¼ cups natural (plain) yoghurt • 2.5 cm/1 in ginger root, minced
4 cloves garlic, crushed • 5 ml/1 tsp ground cumin
5 ml/1 tsp ground cardamom • 5 ml/1 tsp ground cloves
30 ml/2 tbsp chopped fresh coriander (cilantro) • salt
450 g/1 lb beef, cubed • 45 ml/3 tbsp oil • 2 cloves
2 onions, sliced • 2 green chillies, chopped
pinch of ground cinnamon • 5 ml/1 tsp dried fenugreek leaves
250 ml/8 fl oz/1 cup water

**Mix the yoghurt with the ginger, garlic, cumin, cardamom, cloves, coriander and salt, spread over the meat and leave to marinate overnight.**

**Heat the oil and fry the cloves until they darken. Add the onions and fry until golden. Add the chillies, cinnamon and fenugreek and fry for a few seconds. Add the meat, marinade and water, cover and simmer for about 1½ hours until the meat is tender.**

## Aniseed Beef

Serves 4

300 ml/½ pt/1¼ cups natural (plain) yoghurt • 2.5 cm/1 in ginger root, ground
5 cloves garlic, crushed • 5 ml/1 tsp ground cardamom
5 ml/1 tsp ground cinnamon • 2 cloves, ground
450 g/1 lb beef, cubed • 45 ml/3 tbsp oil • 3 large onions, sliced
5 ml/1 tsp ground coriander (cilantro) • 5 ml/1 tsp ground anise
2.5 ml/¼ tsp ground turmeric • salt and pepper
15 ml/1 tbsp chopped fresh coriander (cilantro)

**Mix 15 ml/1 tbsp of the yoghurt with the ginger, garlic, cardamom, cinnamon and cloves, rub into the meat and leave to marinate for 2 hours.**

**Heat the oil and fry the onions until golden. Remove from the pan and set aside. Add the meat and fry until lightly browned on all sides. Mix all the remaining ingredients except the fresh coriander into the remaining yoghurt and add to the meat. Cover and simmer gently for about 1 hour until the meat is tender. Garnish with coriander and serve hot with rice and a vegetable dish.**

# Poultry

**In Indian cookery, chicken is considered more of a delicacy than in the West. It is usually skinned and marinated before cooking. This helps to mature the spices thoroughly. Chicken dishes are a treat because in India they are expensive.**

## Anniversary Chicken

Serves 6-8

**Marinade:** 150 ml ¼ pt ⅔ cup natural (plain) yoghurt
45 ml 3 tbsp wine vinegar ● 4 cloves garlic
2.5 cm 1 in ginger root, coarsely chopped ● 1 onion, coarsely chopped
1 small green chilli (optional) ● 5 ml 1 tsp garam masala
5 ml 1 tsp ground roasted cumin ● 5 ml 1 tsp ground turmeric
2.5 ml ½ tsp ground red chilli ● salt
1 medium chicken, skinned and pricked with a fork
30 ml 2 tbsp ghee, melted
**Filling:** 30 ml 2 tbsp ghee ● 90 ml 6 tbsp desiccated (shredded) coconut
150 g 5 oz Khoya (page 19) ● 150 g 5 oz 1 cup raisins
50 g 2 oz ½ cup blanched almonds, halved ● 50 g 2 oz ½ cup cashew nuts, halved
50 g 2 oz ½ cup walnuts, chopped ● 30 ml 2 tbsp sugar
2.5 ml ½ tsp ground cardamom
2.5 ml ½ tsp saffron soaked in 15 ml 1 tbsp warm milk
1.5 ml ¼ tsp ground cinnamon ● 1.5 ml ¼ tsp ground mace
1.5 ml ¼ tsp ground mixed spice ● 1.5 ml ¼ tsp grated nutmeg
**Sauce:** 2 cloves garlic, crushed ● 1.5 cm ½ in ginger root, coarsely chopped
1 large onion, chopped ● 45 ml 3 tbsp water ● 60 ml 4 tbsp oil
15 ml 1 tbsp ground coriander (cilantro) ● 5 ml 1 tsp garam masala
2.5 ml ½ tsp ground red chilli ● 2.5 ml ½ tsp ground turmeric
salt ● 15 ml 1 tbsp lemon juice
200 ml 7 fl oz scant 1 cup water

**Blend the marinade ingredients to a smooth paste in a blender or food processor. Rub the marinade over the chicken inside and out and leave to marinate for 2 hours.**

**Push 2 skewers into the chicken and place it on a baking dish so that the skewers rest on the dish and the chicken is lifted up. Place any remaining marinade in a pan and fry off the liquid over a high heat. Pour it over the chicken and pour over the melted**

# Vegetables and Vegetarian Dishes

In India, a large number of people are vegetarian, and Indian soil produces lovely different varieties of vegetables. Also, everyone likes to eat a lot of vegetables as it is often too hot to eat meat and meat can be very expensive to buy. There is therefore a vast range of vegetable and vegetarian cooking throughout all the regions, giving ample scope for vegetarian cooking, or using vegetable dishes with meat courses. Many of the dishes in the Dals chapter are also vegetarian.

## Apple Curry

Serves 4-6

**6 small** cooking (tart) apples • oil for deep-frying
**150 ml/¼** pt/⅔ cup oil or ghee • 5 ml/1 tsp cumin seeds
**2 medium** onions, chopped • 4 cloves • 4 peppercorns
**2.5 cm/1** in cinnamon stick • 1 black cardamom pod
**4 large** garlic cloves, chopped • 2.5 cm/1 in ginger root, coarsely chopped
**450 ml/¾** pt/2 cups water • 25 g/1 oz/¼ cup poppy seeds, finely ground
**75 g/3 oz/¾** cup desiccated (shredded) coconut, ground
**10 ml/2** tsp ground coriander (cilantro) • 5 ml/1 tsp ground turmeric
**2.5 ml/½** tsp ground red chilli • 2.5 ml/½ tsp garam masala
**salt** • 400 g/14 oz canned tomatoes, chopped • 15 ml/1 tbsp lemon juice
**Garnish:** 2.5 ml/½ tsp garam masala
**15 ml/1** tbsp chopped fresh coriander (cilantro) • 1 small green chilli, chopped

Peel the apples and remove the pips and core with a sharp knife. Prick the apples all over with a fork then deep-fry in hot oil until golden brown. Drain and reserve.

Heat the oil or ghee in a large heavy-based pan and fry the cumin seeds until lightly browned. Add 1 chopped onion and the cloves, peppercorns, cinnamon and cardamon and fry gently over a medium heat until golden brown. Blend the remaining onion, the garlic, ginger and 30 ml/2 tbsp of water to a smooth paste in a blender or food processor. Stir into the pan and fry for 5 minutes. Add the poppy seeds and fry for 2 minutes. Add the coconut and fry for a further few minutes until golden brown. Stir in the coriander, turmeric, chilli, garam masala, salt and tomatoes and fry until all the liquid has been absorbed and the oil appears on the surface of the mixture. Add 45 ml/3 tbsp of water and fry until it is absorbed. Repeat this twice, then add the remaining water and the lemon juice. Bring to the boil, cover and simmer gently for 3 minutes. Pour the sauce into a serving dish and top with the fried apples. Sprinkle over the garnish ingredients and serve hot with rice and a potato or bean dish.

## Curried Mushrooms, Potatoes and Peas

Serves 6

45 ml/3 tbsp oil • 1 onion, sliced • 4 cloves garlic, crushed
2.5 cm/1 in ginger root, grated • 45 ml/3 tbsp chopped fresh coriander (cilantro)
15 ml/1 tbsp garam masala • 5 ml/1 tsp ground turmeric
1.5 ml/¼ tsp chilli powder • 900 g/2 lb potatoes, quartered • salt
120 ml/4 fl oz/½ cup water • 900 g/2 lb mushrooms, halved • 100 g/4 oz peas

**Heat the oil and fry the onion until browned. Stir in the garlic, ginger and coriander and fry for 2 minutes. Add the garam masala, turmeric and chilli powder and fry for 1 minute, stirring. Add the potatoes, salt and water, bring to the boil, cover and simmer for 10 minutes until the potatoes are three-quarters cooked, stirring occasionally. Add the mushrooms and peas, cover and cook for 5-8 minutes. Remove the lid, increase the heat and cook until three-quarters of the liquid has evaporated, stirring occasionally. Serve hot with rice and lamb curry.**

## Curried Mushrooms with Spinach

Serves 6

450 g/1 lb button mushrooms, halved • 120 ml/4 fl oz/½ cup white wine vinegar
45 ml/3 tbsp clear honey • 45 ml/3 tbsp oil
2.5 cm/1 in ginger root, grated • 450 g/1 lb spinach, chopped
5 ml/1 tsp ground cloves • 2.5 ml/½ tsp chilli powder
1 clove garlic, crushed • 2.5 ml/½ tsp paprika

**Mix together the mushrooms, wine vinegar and honey and leave to marinate for 1 hour. Drain off the liquid. Heat 30 ml/2 tsp of oil and fry the ginger for 30 seconds. Add the mushrooms and fry for 3-4 minutes, stirring, then remove from the pan. Heat the remaining oil and fry the ginger for 1 minute. Add the spinach, cloves, chilli powder and garlic, cover and simmer for 3-4 minutes. Stir in the mushrooms, sprinkle with paprika and simmer, stirring, until well blended.**

## Okra with Cumin and Garlic

Serves 6

45 ml/3 tbsp oil • 1 onion, chopped • 10 cloves garlic, chopped
2 green chillies, chopped • 5 ml/1 tsp ground turmeric
15 ml/1 tbsp ground cumin • 1.5 kg/3 lb okra • salt

**Heat the oil and fry the onion, garlic and chillies until browned. Stir in the turmeric and cumin and fry for 2 minutes until the oil appears on the surface. Stir in the okra and salt, cover and simmer gently for 8-10 minutes until the okra is tender, stirring occasionally.**

# Dals

Dal means lentil, and the various types of lentil and pulses are important sources of protein for vegetarians, although they are equally popular among vegetarian and non-vegetarian societies in India and are cooked in every household. They are eaten with rice, chapatis, paratha, vegetables, meat, fish and chicken.

Cooking methods vary in different parts of India. In northern India, urud dal — split black beans — is cooked with garlic, ginger and asafoetida. In eastern India, gram dal — yellow split peas — is cooked with coconut and tamarind. Among southern Indians, it is popular with a variety of vegetables and with tamarind. In the western part of Indian, moong dal — moong beans — is prepared with lemon.

Clean dals before cooking and pick out any grit.

## Chick Peas with Tamarind

Serves 4-6

500 g/18 oz chick peas (garbanzos), soaked overnight
50 g/2 oz/⅓ cup yellow split peas, cleaned ● 2.8 l/5 pts/12 cups water
2.5 ml/½ tsp bicarbonate of soda (baking soda) ● salt
75 ml/5 tbsp oil or ghee ● 5 ml/1 tsp cumin seeds
3 large cloves garlic, crushed ● 2.5 cm/1 in ginger root, chopped
1 large onion, finely chopped ● 10 ml/2 tsp ground coriander (cilantro)
5 ml/1 tsp ground roasted cumin ● 5 ml/1 tsp garam masala
2.5 ml/½ tsp ground turmeric ● 2.5 ml/½ tsp ground red chilli
400 g/14 oz canned tomatoes ● 10 ml/2 tsp tamarind pulp (page 19)
**Garnish:** 30 ml/2 tbsp chopped fresh coriander (cilantro)
1 small green chilli, chopped ● 2.5 ml/½ tsp garam masala

Place the chick peas, split peas, bicarbonate of soda, salt and water in a large pan. If you do not have a pan large enough, add the water gradually. Bring to the boil, skim off any scum and simmer over a medium heat for 1 hour 20 minutes until the chick peas are tender. Drain.

Meanwhile, heat the oil in a heavy-based pan and fry the cumin seeds until lightly browned. Add the garlic, ginger and onion and fry over a medium heat until golden brown. Stir in the coriander, cumin, garam masala, turmeric and chilli. Stir in the tomatoes and cook until all the water has been absorbed and the oil appears on the top of the mixture. Add the tamarind pulp and cook until all the liquid has been absorbed. Stir in the cooked chick peas and simmer over a medium heat for a further 20 minutes until the mixture thickens. Sprinkle with the garnish ingredients and serve hot with nan, tamarind chutney, potato curry and a chopped onion, cucumber and tomato salad.

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Chop 1 onion and slice the other. Heat 45 ml/3 tbsp of the ghee and fry the chopped onion until soft and lightly browned. Stir in the ginger, peppercorns, turmeric and chick peas and fry for 3 minutes. Add the stock, bring to the boil, cover and simmer for 1 hour, stirring frequently, until the chick peas are tender and slightly mushy. Meanwhile, heat the remaining ghee and fry the sliced onion until crisp and brown. Serve the chick peas garnished with the onion.

## Chick Peas with Tomato

Serves 4

60 ml/4 tbsp ghee • 4 cloves garlic, crushed
3 onions, chopped • 2 green chillies, chopped
5 ml/1 tsp ground turmeric • 5 ml/1 tsp paprika
15 ml/1 tbsp ground cumin • 15 ml/1 tbsp ground coriander (cilantro)
5 ml/1 tsp garam masala • 5 tomatoes, skinned and chopped
15 ml/1 tbsp chopped fresh mint • 15 ml/1 tbsp chopped fresh coriander (cilantro)
2 × 450 g/1 lb cans chick peas (garbanzos), drained
salt and pepper

Heat the ghee and fry the garlic, onions and chillies until lightly browned. Add the turmeric, paprika, cumin coriander and garam masala and fry gently for 5 minutes, stirring. Add the tomatoes, mint and coriander and cook for 10 minutes, stirring. Add the chick peas and simmer for 5-10 minutes until the chick peas are well coated in the sauce. Season with salt and pepper before serving.

## Mixed Dals

Serves 4

225 g/8 oz/1⅓ cups mixed dals (red lentils, yellow split peas, split black beans)
600 ml/1 pt/2½ cups water• 5 ml/1 tsp ground turmeric
salt • 30 ml/2 tsp ghee • pinch of asafoetida
15 ml/1 tbsp finely chopped onion • 2.5 ml/½ tsp cumin seeds
5 ml/1 tsp chilli powder • 15 ml/1 tbsp lemon juice

Boil the dals in the water with the turmeric for 30 minutes. Stir in a little salt and simmer for a further 10 minutes. Heat the ghee and fry the asafoetida, onion, cumin seeds and chilli powder until golden. Add to the dals and cook for a further 5 minutes. Sprinkle with lemon juice and serve hot with any main courses.

# Rice Dishes

The world's greatest rice-producing nation, India is famous, in particular, for the long-grain patna and basmati rices which are produced there. In the east and south, they consume the most rice, but lavish biryanis and rice pulao recipes have also originated from the northern parts of India.

Always soak, wash and drain rice before using in the recipes.

## Plain Boiled Rice

Serves 4-6

250 g 9 oz 1 cup patna or basmati rice

750 ml 1¼ pts 3 cups water • 15 ml 1 tbsp ghee

Place the rice, water and ghee in a pan and bring to the boil over a medium heat. Reduce the heat to low, cover the pan and cook for 15 minutes. If any water is left, dry it off on a high heat but don't stir. Turn off the heat and leave for at least 5 minutes before serving. Separate the grains with a fork and serve hot with dal, curries, yoghurt and pickle.

## Oven-cooked Rice

Serves 4

225 g 8 oz 1 cup patna or basmati rice

1.2 l 2 pts 5 cups water • 5 ml 1 tsp oil

Soak the rice for 20 minutes then wash and drain. Bring the water to the boil with the oil. Add the rice and simmer over a medium heat for 5 minutes, stirring occasionally until the rice is three-quarters cooked. Drain and rinse in cold water then leave in a colander for 5 minutes to drain completely. Place in an ovenproof dish, cover and cook in a preheated oven at 200°C/400°F/gas mark 6 for 5-8 minutes. Reduce the oven temperature to 150°C/300°F/gas mark 2 and cook for a further 8 minutes until the rice is cooked and fluffy.

## Aromatic Rice

Serves 4

45 ml 3 tbsp ghee • 3 onions, sliced • 1 cm ½ in cinnamon stick

3 cardamom pods • 3 cloves • 2.5 ml ½ tsp cumin seeds

225 g 8 oz 1 cup long-grain rice, soaked

250 ml 8 fl oz 1 cup water • salt

Heat the ghee and fry the onions until browned. Add the cinnamon, cardamom pods, cloves and cumin seeds and fry for 1 minute. Add the rice and fry for 2-3 minutes, stirring. Add the water and salt, bring to the boil, cover and simmer gently for about 15 minutes until the rice is cooked.

## Spiced Rice

Serves 4

275 g/10 oz/1¼ cups long-grain rice, soaked ● 45 ml/3 tbsp ghee

2.5 cm/1 in cinnamon stick ● 2 bay leaves ● 5 cloves

5 cardamom pods ● 2.5 ml/½ tsp cumin seeds ● salt

**Drain the rice and leave to stand. Heat the ghee and fry the whole spices and salt for 2 minutes, stirring. Add the rice and stir until well coated in the seasoned oil. Add just enough water to come 2.5 cm/1 in above the level of the rice, bring to the boil, cover and simmer gently for 20 minutes. Fluff up the rice with a fork before serving.**

## Hot Spiced Rice

Serves 6

90 ml/6 tbsp oil ● 4 onions, chopped ● 3 cloves garlic, chopped

20 black peppercorns ● 6 cardamom pods ● 4 bay leaves

5 cm/2 in cinnamon stick ● 8 cloves ● 15 ml/1 tbsp grated ginger root

30 ml/2 tbsp garam masala ● 675 g/1½ lb/3 cups long-grain rice, soaked for 20 minutes

15 ml/1 tbsp cumin seeds

**Heat the oil and fry half the onions until browned and crisp. Remove from the pan. Add the remaining onions to the pan and fry until golden. Add the peppercorns, cardamom, bay leaves, cinnamon and cloves and fry for 1 minute. Add the ginger and fry for 2 minutes until lightly browned. Add the garam masala and stir well. Drain the rice, reserving the liquid. Make the soaking liquid up to 1.5 l/2½ pts/6 cups with water. Add the rice and cumin seeds to the pan and fry for 4-5 minutes, stirring so that the rice is coated in the spiced oil. Add the water, bring to the boil, cover and simmer gently for about 30 minutes until the water has been absorbed. Separate the grains with a fork and serve garnished with the crisp fried onions.**

## Spicy Sambar Rice

Serves 4-6

225 g/8 oz/1 cup long-grain rice ● 175 g/6 oz/1 cup red lentils

900 ml/1½ pts/3¾ cups water ● 4 onions, sliced

1 green (bell) pepper, diced ● 1 small aubergine (eggplant), diced ● 1 potato, diced

2.5 ml/½ tsp ground turmeric ● 5 ml/1 tsp tamarind concentrate

90 ml/6 tbsp ghee ● 1 small bunch fresh coriander (cilantro), chopped ● salt

**Paste:** 20 ml/4 tsp oil ● 8 dried red chillies

45 ml/3 tbsp coriander (cilantro) seeds ● 15 ml/1 tbsp yellow split peas

2.5 cm/1 in cinnamon stick ● 5 ml/1 tsp poppy seeds ● 5 cloves

2.5 ml/½ tsp fenugreek seeds ● ½ coconut, grated (shredded)

5 ml/1 tsp asafoetida

# Breads and Papadums

Wheat breads play an important part in a northern Indian meal menu. There are three basic types: dry breads such as chapati, roti and nan; shallow-fried breads such as paratha;, and deep-fried bread such as puri. All of these breads can be served plain or stuffed. South India's famous breads are dosa and idli and they are made with lentils and rice.

Papadums are available ready-made and are easy to bake, fry or microwave ready to go with your Indian meal. Although not easy, however, it is possible to make them even if you cannot dry them out in the hot sun.

## Nan

Makes 8

30 ml/2 tbsp fresh yeast or 5 g/¼ oz/1 sachet dried yeast
120 ml/4 fl oz/½ cup warm milk • 30 ml/2 tbsp sugar
120 ml/4 fl oz/½ cup natural (plain) yoghurt • 1 large egg, lightly beaten
45 ml/3 tbsp oil plus extra for brushing • salt
450 g/1 lb/4 cups plain (all-purpose) flour plus extra for brushing
45 ml/3 tbsp warm water (optional) • 15 ml/1 tbsp black onion seeds

Dissolve the yeast in 45 ml/3 tbsp of the warm milk. Stir in 5 ml/1 tsp of sugar and leave to rest in a warm place for 10 minutes until frothy. Lightly beat the yoghurt and add the remaining sugar and milk, the egg, 45 ml/3 tbsp of oil and salt to taste. Stir in the yeast mixture and flour and mix to a dough. Knead for 10-15 minutes until smooth, using the extra water if necessary and dusting with flour to prevent sticking. Cover the dough with a damp cloth and set aside for 4 hours until doubled in size.

Punch down the dough and knead it for 2 minutes until smooth. Divide it into 8 equal balls and roll out to 20 cm/8 in circles. Brush with a little oil and sprinkle with onion seeds. Place 2 breads on greased baking sheets and bake in a preheated oven at 240°C/475°C/gas mark 9 for 3 minutes until the bread has puffed and turned golden brown. Repeat with the remaining breads.

## Paratha Stuffed with Mozzarella and Chicken

Makes 8

225 g/8 oz/2 cups wholewheat flour plus extra for dusting
salt • 250 ml/8 fl oz/1 cup warm water or milk
120 ml/4 fl oz/½ cup oil • 1 large chicken breast, boned and cut into pieces
250 ml/8 fl oz/1 cup water • 45 ml/3 tbsp oil
1 small onion, finely chopped • 3 cloves garlic, grated
5 mm/¼ in ginger root, finely chopped • 1 green chilli, finely chopped
2.5 ml/½ tsp ground coriander (cilantro) • 1.5 ml/¼ tsp ground cumin
50 g/2 oz Mozzarella cheese, grated

**Mix the flour, salt, water and 15 ml/1 tbsp oil to make a dough. Knead for 10 minutes until smooth. Cover with a damp cloth and leave to rest for 20 minutes.**

**Cook the chicken in the water with a pinch of salt for about 15 minutes until cooked. Finely chop the chicken and set aside.**

**Heat the oil and fry the onion, garlic, ginger and chilli over a medium heat until the onion is browned. Stir in the coriander and cumin and fry for 1 minute. Add the chicken and fry for 2-3 minutes, stirring and mixing thoroughly. Remove from the heat and set aside.**

**Knead the dough for 1 minute, divide it into 8 balls and roll out to 15 cm/6 in circles. Spread the chicken mixture over the circles and sprinkle with Mozzarella. Fold the breads in half, brush with oil and fold in half again to make a triangle. Dust with flour and gently roll out to make an 18 cm/7 in triangle. Heat a frying pan (skillet) over a medium heat and brush with a little oil. When the oil is hot, gently place 1 bread in the pan and fry for 2-3 minutes. Turn and brush with a little oil. Fry for 2-3 minutes until golden brown and crisp on both sides. Remove from the pan and keep warm while you fry the remaining paratha.**

## Chapatis

Makes 12

350 g/12 oz/3 cups wholewheat flour plus more for dusting • salt
250 ml/8 fl oz/1 cup warm milk, water or buttermilk • 15 ml/1 tbsp oil

**Mix together the flour, salt and milk, water or buttermilk to form a dough. Place the dough on a floured surface and knead in the oil. Knead for 10 minutes until smooth then cover with a damp cloth and leave to stand at room temperature for 15-20 minutes.**

**Divide the dough into 12 balls. Coat each one with flour and flatten to form a round. Roll out to about 15 cm/6 in in diameter. Heat an iron griddle or frying pan (skillet) over a high heat then reduce the heat to medium. Place 1 chapati in the hot pan and fry for about 30 seconds until the top begins to puff. Turn over the chapati and fry for a further 30-40 seconds until the surface starts to puff. Remove from the pan and fry the remaining chapatis in the same way. Serve immediately.**

## Potato Papadums

Makes 14

250 g/9 oz potatoes • 2.5 ml/½ tsp garam masala
1.5 ml/¼ tsp ground red chilli • 1.5 ml/¼ tsp black pepper
salt • 1 large plastic bag • 1 small plastic bag • oil for smearing and deep-frying

Cook the potatoes in their skins until tender then peel and mash them thoroughly. Stir in the spices and divide into 14 equal portions. Smear both the bags with oil and place the large bag on the work surface. Roll 1 portion of potato into a ball, place on the plastic, cover with the other bag and roll it into a 10 cm/4 in circle. Remove the small bag, smear it again with oil and continue to roll out all the papadums. Leave exposed to the air for 1 day to dry out.

Place the papadums on greased baking trays and place in the oven about 30 cm/12 in above the pilot light. Leave for 3 days to dry out, turning them over every day. When dried, store in an airtight container.

Just before serving, heat the oil in a deep frying pan (skillet) over a medium-low heat. Gently slip a papadum into the hot oil and fry for a few seconds until lightly browned on both sides. Serve hot or at room temperature. Do not fry in advance otherwise the papadums will go soft.

## Spiced Lentil Papadums

Makes 8

25 g/1 oz split black beans, ground • 15 black peppercorns, coarsely ground
1.5 ml/¼ tsp ground red chilli • salt • 100 ml/3½ fl oz 6½ tbsp water

Place all the ingredients in a pan and cook over a medium heat for 3 minutes until the water has been absorbed, stirring continuously. Leave to cool slightly then shape into 8 equal portions. Roll, dry and fry as Potato Papadums (above), or grill (broil) for a few seconds. Serve immediately.

## Rice Papadums

Makes 10

25 g/1 oz 2 tbsp long-grain rice, ground • large pinch of salt
100 ml/3½ fl oz 6½ tbsp water • 1 large plastic bag • 1 small plastic bag
oil for smearing and deep-frying

Combine all the ingredients in a pan over a medium heat and cook for 1 minute until all the water has been absorbed. Leave to cool slightly then shape into 10 equal portions. Roll, dry and fry as Potato Papadums (above).

# Snacks

Snacks
afternoon
Afternoon
housewife
friends
offers

play an important part in an Indian household, especially in the late and in the summer when days are long and late suppers are usual. tea, or 'tiffin', includes a variety of nibbles and the Indian can always produce sev and nimkis from her larder. In India, and relations may visit you at any hour of the day, and the host always them something to eat and drink.

Serves 4

## Sev Puri

Puris (page 309) • 2 boiled potatoes, chopped
onion, finely chopped • ½ cup Sev (page 353)
ml/3 tbsp chutney • 1 green mango, chopped
ml/1 tbsp chopped fresh coriander (cilantro)

**range** the puris on a plate and top the potatoes and onion then the sev. Add chutney to taste and garnish with the mango and coriander.

Serves 4

## atato Puri

Puris (page 309) • 3 boiled potatoes, chopped
ml 4 tbsp natural (plain) yoghurt • salt
ml 1 tsp chilli powder • 15 ml 1 tbsp chutney
ml 1 tbsp chopped fresh coriander (cilantro) • 5 ml 1 tsp ground cumin

**range** the puris on a plate and make hole in the centre of each. Stuff the tatoes into the puris and sprinkle with salt and chilli powder then a little chutney. Garnish with coriander and cumin and serve at once.

## Vegetable Samosas

Serves 8

2 green chillies • 2 cloves garlic • 2.5 cm/1 in ginger root

2.5 ml/½ tsp ground turmeric • 1.5 ml/¼ tsp ground coriander (cilantro)

2.5 ml/½ tsp ground cumin • 15 ml/1 tbsp oil • 1 onion, sliced

100 g/4 oz peas • 100 g/4 oz carrots, chopped

100 g/4 oz potato, chopped • 2.5 ml/½ tsp salt • 15 ml/1 tbsp water

2 sprigs fresh coriander (cilantro), chopped • juice of 1 lime

100 g/4 oz/1 cup wholewheat flour • 225 g/8 oz/2 cups plain (all-purpose) flour

pinch of salt • 60 ml/4 tbsp water • oil for deep-frying

**Grind the spices to a paste. Heat the oil and fry the onion until browned. Add the peas, carrots and potatoes and fry for 2 minutes. Add the ground spices, salt and water, cover and simmer until the vegetables are tender and the water is absorbed. Add the coriander and lime juice.**

**Mix the flours and salt and add enough water to make a soft dough. Divide the dough into small balls then roll them out into 8 cm/3 in circles. Cut in half and shape into cones, sealing the edges together with a little water. Spoon the vegetable mixture into the cones and seal the edges carefully. Deep-fry in the hot oil until browned.**

## Moghlai Samosas

Serves 6

450 g/1 lb minced (ground) meat • 2 large onions, chopped

5 cloves garlic, chopped • 4 green chillies, chopped

1 bunch fresh coriander (cilantro), chopped • 15 ml/1 tbsp ghee

5 ml/1 tsp ground turmeric • 2.5 ml/½ tsp salt

juice of ½ lemon • 275 g/10 oz/2½ cups plain (all-purpose) flour

pinch of salt • 60 ml/4 tbsp water • oil or ghee for deep-frying

**Cook the meat, onions, garlic, chillies, coriander, ghee, turmeric and salt in a large pan until the meat is dry and tender. Add the lemon juice and leave to cool.**

**Mix the flour and salt then add enough water to make a stiff dough. Divide into walnut-sized balls then roll out 2 of the balls together into a circle. Brush one circle with melted ghee and press the other on top the roll out the circles until very thin. Dry fry in a heavy-based pan until dry but not browned. While still hot, pull the 2 pieces of pastry apart then cut into 3 cm/1¼ in strips.**

**Fold the short edge of the pastry strips over twice to form a pocket, fill this with mince then fold the strip over and over in a triangle shape, sealing the edges with a little water.**

**Deep-fry in the hot oil until crisp and brown. Serve hot with chutney.**

# Chutneys, Pickles and Relishes

No Indian meal is complete without a pickle and chutney. They add an extra taste to a meal and help to increase the appetite. There are no special guidelines as to which chutney goes with which dish, they are all interchangeable according to one's own preference. They are served with both snacks and main meals. There are two types of chutney: cooked and uncooked. The former keep very well in airtight jars like any other preserve, whereas uncooked chutneys should be eaten within a day or two of making them.

## Apple Chutney

Makes 900 g/2 lb

4 large cloves garlic • 5 cm/2 in ginger root
250 ml/8 fl oz/1 cup wine vinegar • 800 g/1¾ lb/3½ cups sugar
seeds from 6 black cardamom pods • 2.5 ml/½ tsp black peppercorns
2.5 ml/½ tsp cloves • 500 g/18 oz firm apples, peeled and grated in long strips
10 ml/2 tsp ground red chilli • 10 ml/2 tsp salt

**Blend the garlic, ginger and 45 ml/3 tbsp of wine vinegar to a smooth paste in a blender or food processor. Heat the remaining wine vinegar in a heavy-based pan over a medium heat. Add the sugar and boil until the sugar has dissolved. Skim off any scum. Coarsely grind the cardamom seeds, peppercorns and cloves then add them to the pan with the remaining ingredients and bring to the boil. Reduce the heat to medium-low and cook, uncovered, until the mango is tender and the chutney is thick. Leave to cool uncovered then pot in clean screw-top jars.**

## Hot Indian Chutney

Makes 1 kg/2 lb

350 g/12 oz cooking apples, peeled, cored and sliced
225 g/8 oz onions, finely chopped • 350 g/12 oz brown sugar
750 ml/1¼ pts/3 cups malt vinegar • 225 g/8 oz raisins
2 cloves garlic, crushed • 10 ml/2 tsp salt • 15 ml/1 tbsp ground ginger
15 ml/1 tbsp mustard seeds • 15 ml/1 tbsp paprika
10 ml/2 tsp coriander (cilantro) seeds, crushed

**Place all the ingredients in a large pan and stir over a gentle heat until the sugar has dissolved. Bring to the boil then simmer gently for about 2 hours until the chutney is thick. Spoon into warmed jars, cover and store for 2-3 months before serving.**

### Banana Chutney

Makes about 1 kg/2 lb

500 g/18 oz bananas, peeled and sliced ● 50 g/2 oz/⅓ cup raisins
50 g/2 oz/⅓ cup stoned dates, chopped
225 g/8 oz cooking apples, peeled, cored and chopped
2.5 ml/½ tsp salt ● 75 g/3 oz/⅓ cup demerara sugar ● 10 ml/2 tsp ground ginger
pinch of cayenne ● 150 ml/¼ pt/⅔ cup distilled vinegar

**Place all the ingredients in a large pan and stir over a low heat until the sugar has dissolved. Bring to the boil then simmer gently, stirring occasionally, for about 45 minutes until the chutney is thick and pulpy. Spoon into warmed jars, cover and store for 2-3 months before serving.**

### Carrot Chutney

Makes 450 g/1 lb

450 g/1 lb carrots, grated ● 1 onion, grated
45 ml/3 tbsp chopped fresh mint ● 2.5 cm/1 in ginger root, finely chopped
7.5 ml/1½ tsp salt ● 60 ml/4 tbsp lemon juice

**Mix together all the ingredients, adding just enough lemon juice to moisten. Cover and chill until required. The chutney will keep for up to 2 days in the refrigerator.**

### Cauliflower Pickle

Makes 900 g/2 lb

900 g/2 lb cauliflower, cut into florets ● salt
15 ml/1 tbsp mustard seeds ● 50 g/2 oz mango powder
15 ml/1 tbsp chilli powder ● 10 ml/2 tsp ground turmeric
5 ml/1 tsp aniseeds ● 90 ml/6 tbsp mustard oil

**Cook the cauliflower in boiling salted water until just tender. Drain and leave to cool. Grind together the spices and mustard oil to a paste. Toss the cooked cauliflower in the paste and leave to marinate for 1 day in a warm place. Store in airtight jars.**

### Green Chilli Pickle

Makes about 450 ml/¾ pt

225 g/8 oz green chillies, halved and seeded
300 ml/½ pt/1¼ cups oil ● 15 ml/1 tbsp paprika ● 5 ml/1 tsp ground turmeric
15 ml/1 tbsp fennel seeds ● 15 ml/1 tbsp mustard seeds ● 30 ml/2 tbsp salt

**Place the chillies in a dry jar. Warm the oil slightly then stir in the remaining ingredients and leave to cool for 10 minutes. Pour over the chillies and mix well. Cover with muslin (cheesecloth) and leave to stand for 2-3 days in a warm place, stirring occasionally. Remove the muslin and put on the lid. Leave in a cool place for 2 weeks before serving.**

### Chilli Chutney

Makes 150 g/5 oz

1 bunch fresh coriander (cilantro) • 1 bunch fresh mint
6-7 green chillies • 5 ml/1 tsp chilli powder
2.5 ml/½ tsp cumin seeds, roasted • pinch of asafoetida
10 ml/2 tsp mango powder • salt • juice of 1 lemon

**Grind together all the ingredients except the lemon juice, seasoning to taste with salt. Mix in the lemon juice. Serve with any main courses.**

### Coriander Chutney

Makes 450 g/1 lb

1 bunch fresh coriander (cilantro), coarsely chopped
1 medium onion, coarsely chopped • 1 small green chilli
juice of 1 large lemon • 2.5 ml/½ tsp ground red chilli
2.5 ml/½ tsp garam masala • salt

**Blend all the ingredients to a smooth paste in a blender or food processor then store in an airtight jar for up to 2 weeks.**

### Coriander and Coconut Chutney

Makes 200 g/7 oz

100 g/4 oz fresh mint, chopped • 100 g/4 oz fresh coriander (cilantro), chopped
½ small coconut, grated (shredded) • 10 cloves garlic, chopped
1-2 green chillies, chopped • juice of 1 lemon • salt

**Grind all the ingredients together, seasoning to taste with salt. Chill before serving.**

### Coriander and Mint Chutney

Serves 4

15 g/1 oz fresh coriander (cilantro) • 15 g/½ oz fresh mint leaves
60 ml/4 tbsp lemon juice • 5 ml/1 tsp pomegranate seeds
2.5 ml/½ tsp garam masala • 2.5 ml/½ tsp ground red chilli
1 small green chilli • 1 large clove garlic • 1 onion, coarsely chopped
30 ml/2 tbsp water • salt

**Blend all the ingredients to a smooth paste in a blender or food processor. Refrigerate for 1 hour before serving.**

# Desserts and Sweets

**Indian desserts are very rich, and many of them are milk-based. A small portion is a delicious way to finish a meal. Use a non-stick saucepan if possible because some of them stick to the pan very easily.**

**Sweets play an important role in India. No function or festival is celebrated without sweets. Sweets are always distributed among relatives, friends and neighbours whenever a child is born, a marriage takes place, on birthdays or other celebrations. It is a lovely way to encourage celebration and bring people closer together.**

### Pineapple Salad

Serves 6

175 ml 6 fl oz ¾ cup pineapple juice • 15 ml 1 tbsp arrowroot
60 ml 4 tbsp clear honey • few drops of kewra or rose water
1 pineapple, sliced • 2 apples, cored and sliced • 2 bananas, sliced
30 ml 2 tbsp raisins • 30 ml 2 tbsp pine nuts, chopped
15 ml 1 tbsp lemon juice • 50 g 2 oz strawberries
120 ml 4 fl oz ½ cup soured (dairy sour) cream

**Bring the pineapple juice to a boil. Mix the arrowroot and honey and stir into the juice. Simmer for 15 minutes. Add the kewra or rose water and simmer for 3 minutes then pour into a large bowl. Add the prepared fruit to the juice then gently stir in the raisins, pine nuts and lemon juice. Cover and refrigerate for about 2 hours, stirring occasionally. Stir in the strawberries and serve with a dollop of soured cream.**

### Fruit Chat

Serves 4-6

100 g 4 oz apples • 100 g 4 oz pears • 100 g 4 oz guavas
100 g 4 oz seedless grapes • 3 bananas • 30 ml 2 tbsp lemon juice
15 ml 1 tbsp sugar • 5 ml 1 tsp garam masala
2.5 ml ½ tsp ground red chilli • salt

**Cut the apple, pear and guavas into 2.5 cm/1 in pieces, separate the grapes and slice the bananas. Place in a bowl with the remaining ingredients, toss together gently and serve cold. You can substitute other fruits of your choice, such as pineapple, orange, papaya, apricot, peach and melon.**

## Aloo Jamun

Makes 20

225 g/8 oz mashed potatoes • 50 g/2 oz/½ cup full-cream milk powder
50 g/2 oz/⅓ cup semolina • 2.5 ml/½ tsp ground cardamom
45 ml/3 tbsp milk • ghee and oil for frying
225 g/8 oz/1 cup sugar • 200 ml/7 fl oz/scant 1 cup water
5 ml/1 tsp rose water

**Mix together the potatoes, milk powder, semolina, cardamom and milk to a soft dough. Cover and leave for 30 minutes. Divide the dough into 20 portions and roll into sausage shapes. Heat equal quantities of oil and ghee and fry the jamun over a medium heat until golden brown, turning frequently. Do not fry them too quickly or they will not be cooked through. Remove with a slotted spoon and cool.**

**Meanwhile, bring the sugar and the water over a medium heat, stirring until the sugar dissolves. Remove from the heat and add the jamun to the syrup. Return to the boil, reduce the heat and simmer for 5 minutes. Remove from the heat and stir in the rose water, shaking the pan to coat the jamun in syrup. Serve hot or cold.**

## Halwa

Serves 6

150 g/6 oz/¾ cup ghee • 150 g/5 oz/1¼ cups gram flour
150 ml/¼ pt/⅔ cup water • 150 g/6 oz/¾ cup sugar
25 g/1 oz/3 tbsp pistachios, sliced • 25 g/1 oz/3 tbsp flaked almonds
5 ml/1 tsp ground cardamom

**Heat the ghee and fry the gram flour over a low heat for 5 minutes, stirring continuously. Add the water and continue to stir until it has been absorbed. Add the sugar and half of each of the nuts and blend thoroughly. Simmer until the mixture is thick then stir in the remaining nuts. Sprinkle with cardamom and serve hot.**

## Beetroot Halwa

Serves 8-10

4 beetroots (red beets), peeled and diced • 225 g/8 oz/1 cup sugar
60 ml/4 tbsp ghee • 50 g/2 oz/⅓ cup raisins
50 g/2 oz/½ cup cashew nuts, chopped • 5 ml/1 tsp ground cardamom

**Cook the beetroots in boiling water until tender. Drain then mash until smooth. Put the beetroot and sugar in a pan and simmer over a low heat until the mixture thickens. Gradually add the ghee, stirring all the time until the halwa is almost solid. Add the raisins, nuts and cardamom and spoon into a serving dish to cool.**

# Drinks

d parts of India have long and very hot summers and intense heat waves. erefore soft, cold drinks play an enormous part in the people's lives. tly, people like to make and preserve different types of 'sharbat', 'dhan- ' and 'lassi' at home. The reason for this is that one can make them eaper than buying them in the shops, and they can be made according to dividual taste. For special occasions, alcohol is sometimes added to the t drinks.

Tea is also synonymous with India. India and Sri Lanka are the largest oducers of fine teas in the world. Black Assam tea is grown in the foothills f the Himalayas and is strong, pungent and full-bodied. Darjeeling, ltivated under snow-capped mountains, is known for its exquisite flavour d distinctive aroma. The teas of Nilgiris — the Blue Hills in southern India – have a bright, brisk quality with distinctive flavours.

In the cooler parts of India, the people often add spices to their teas, not st for flavouring but also to induce heat in the body. Spiced teas are rticularly welcome after a satisfying Indian meal.

## lmond Squash

Serves 4

0 g/2 oz/½ cup blanched almonds, soaked overnight

50 ml/8 fl oz/1 cup water • 150 g/5 oz/⅔ cup sugar • cold milk • ice cubes

rain the almonds and blend with half e water to a smooth paste in a blender or food processor. Place the paste n a pan with the remaining water and e sugar and bring to the boil. Reduce the heat to low and simmer for 2 minutes. Cool then chill to ice cold. To serve, dilute with milk to taste and serve with ice cubes.

## Cherry Squash

Serves 4

50 g/1 lb cherries • 450 ml/¾ pt/2 cups water • 225 g/8 oz/1 cup sugar

5 ml/1½ tsp citric acid • 5 ml/1 tsp cherry essence (extract)

ut the cherries and water in a large an and bring to the boil. Reduce the eat and simmer gently for about 15 minutes until tender. Cool then rub hrough a sieve and collect the juice in clean pan. Add the sugar and citric acid, bring to the boil, skim off any scum and simmer for 5 minutes over a medium-low heat. Leave to cool then stir in the cherry essence. Dilute with cold water to taste.

From Frommer's: India on $45 a Day

## INDIAN CUISINE

If curry is the limit of your knowledge about Indian food, then you have a lot to learn about one of the most exotic and varied cuisines in the world. Curry dishes spiced just enough to be interesting can consist of meat, fish, eggs, or vegetables. They are served with rice or one of India's tasty breads and will taste very different from the curry you've had in the Western world. The spices that go into them will be freshly ground, and no two cooks will make exactly the same mixture of seasonings.

There's terrific variety, too, in the way the same dishes are spelled on restaurant menus. But even the most far-out spellings you'll encounter will match up to the dishes described below and elsewhere in this book.

**SOUP** *Mulligatawny*, a soup with a curry base, is world famous.

**BREADS** *Chapatis, parathas*, and *puris* are Indian breads made of whole-wheat flour, shaped into flat cakes, and grilled, roasted, or sautéed. Another popular bread is *naan*, made from white flour and long in shape. *Pappadums* are crispy, crackerlike concoctions, seasoned with peppers and anise seed and very tasty with any food. *Dosas*, thin pancakes made with a rice base and popular in the south, are often stuffed with vegetables, turnover style. *Idlis* are steamed rice and lentil cakes and are served with chutney and ground spices—a popular breakfast dish in South India.

**MAIN COURSES** *Vindaloo* is a marinated meat dish popular in Goa.

*Biryani*, a dish for special occasions, is made of chicken or lamb with fragrant whole spices and rice, and is garnished with raisins, cashews, almonds, and a sprinkling of rose water.

*Tandoori* defines a method of cooking, something like our barbecue except in a clay oven. Chicken tandoori is very popular, and sometimes lamb and fish are cooked this way.

*Dum Pukht*, popular with the old Nawabs, is succulent steamed cooking and is something like the Western casserole.

*Seekh kebabs* are skewered pieces of meat broiled over an open fire. Kebabs are minced pieces of meat, patty shaped, and are filled with chopped onion, green pepper, and fresh ginger.

*Patrani machli* is fish stuffed with chutney and baked in banana leaves—popular in Bombay.

**ACCOMPANIMENTS** *Dal, chutney*, and *raita* are side dishes. Dal will look like soup or gravy to you. It is made of lentils or dried peas and other ingredients and is served with the main course as a bland partner to other more highly seasoned foods. Chutneys are made with fruits or vegetables in a sweet-and-sour sauce. Mint and mango chutneys are especially good. Green coriander (Chinese parsley, perhaps better known as cilantro) makes another delicate chutney.

Pickles are also popular and can be made out of fruits or vegetables.

*Raita* is a yogurt preparation with vegetables or fruit. *Dahi* is yogurt and is used to tone down more spicy foods; it is also used in salads and as a marinade for vegetables.

**VEGETABLES** Cooked vegetables include *brinjals* (eggplant), *bhindi* (okra), and *mattar* (peas). Vegetarian dishes are especially good in India, prepared with unusual sauces, combined with cheese, and delicately spiced. Rice is also excellent in India and is served many ways, with vegetables, nuts, fruits, and spices.

**DESSERTS & SWEETS** *Firni* is pudding made with rice; *barfi* is a sweet similar to fudge; *jalebi* are pretzel-shaped pastries in sweet syrup; *sandesh* is a dessert made with milk; and *rasgullas* is a light dessert made with yogurt.

Carrots are disguised at dessert time and come to the table as *halwa*. India's ice cream is rich and creamy and often filled with chunks of fresh fruit. Any dessert may appear looking very dressy with a coat of thin, edible silver or gold, which is not only pretty but practical, as it is supposed to aid digestion.

**FRUITS** To top off any feast, there are a variety of fruits, some familiar (bananas, apples, incredibly tasty mangoes) and some exotic, such as *chikoos* (a cross between the fig and the russet apple) or the custard apple, which looks like an artichoke but is not.

**DRINKS** Indian-grown tea is excellent; coffee, also locally grown, is very good. Be sure to specify if you want your coffee black—the Indian way is to mix it with steaming milk before serving it. Local beer is very good and a fine partner to Indian foods. There is a large selection of fruit drinks, of which apple is excellent (but relatively expensive), so too fresh lime and soda. Drink bottled or boiled water to stay on the safe side. You can get bottled water in most restaurants and in many markets.

**PAN** After a big meal, try *pan*, an Indian digestive sold by vendors near restaurants. This is made of betel nuts and sweet and aromatic spices, all wrapped in crisp betel leaf. Ask for it not too hot. Pan leaves the mouth refreshed, as if you had just brushed your teeth.

# BREAKFAST

Served between 6 a.m. to 10 a.m.

**Continental Breakfast** .. 175

CHOICE OF FRESH JUICE
OR SEASONAL FRESH FRUIT

CROISSANT, DANISH PASTRY, MUFFIN
OR TOAST WITH BUTTER AND PRESERVES

TEA, COFFEE OR HOT CHOCOLATE

**The Indian Breakfast** .. 215

CHOICE OF FRESH JUICE
OR SEASONAL FRESH FRUIT

STUFFED PARANTHA WITH CURD AND PICKLES
OR
MASALA DOSA WITH SAMBHAR AND CHUTNEY

SWEET, SALTED OR PLAIN LASSI, TEA OR COFFEE

**The Trident Breakfast** .. 275

CHOICE OF FRESH JUICE
OR SEASONAL FRESH FRUIT

CROISSANT, DANISH PASTRY, MUFFIN OR TOAST
SERVED WITH BUTTER AND PRESERVES

CORNFLAKES, CREAM OF WHEAT OR
OATMEAL WITH MILK

TWO EGGS ANY STYLE WITH HAM, BACON OR SAUSAGES
OR
PANCAKES WITH MELTED BUTTER AND HONEY

TEA, COFFEE OR HOT CHOCOLATE

Please Contact Extension 3

Taxes as applicable.
WE LEVY NO SERVICE CHARGE

### A La Carte Selection

CHOICE OF FRESH JUICE OR
SEASONAL FRESH FRUIT .. 75

CEREALS WITH MILK OR CREAM .. 90

MUESLI .. 90

**Indian**

MASALA DOSA .. 125

UTTAPAM
Plain, tomato or onion with sambhar and chutney

PURI BHAJI .. 125

STUFFED PARANTHA
with aloo bhaji or yoghurt .. 125

**Continental**

TWO EGGS TO ORDER
with ham, bacon or sausages .. 125

CROISSANTS, MUFFINS, DANISH PASTRY OR TOAST
served with butter and preserves .. 100

MUSHROOMS OR BAKED BEANS ON TOAST .. 100

AMERICAN PANCAKES
with melted butter and honey .. 100

TEA OR COFFEE .. 60

*A complete Buffet breakfast including Indian breakfast
is available at Jacaranda The Coffee Shop between 6 am to 10 am*

## LUNCH AND DINNER

Served between 12.00 noon to 11.00 p.m.

### International Specialities

PANFRIED POMFRET WITH BEANS
Served with a lemon butter sauce and boiled potatoes .. 325

GRILLED KING FISH
Served on a tomato coulis with saute spinach .. 250

CHICKEN FORESTIERE
With pearl onions and fresh mushrooms .. 275

LAMB STEW WITH SESAME BREAD
Diced lamb cooked with carrots, turnips and courgette .. 250

ASSORTED COLD CUTS
Served with French bread, mustard and pickles .. 275

FILLET STEAK WITH ROSEMARY SAUCE
Breaded onion rings and roast vegetables as accompaniments .. 250

VEGETABLE AND CHEESE CREPES
Topped with basil tomato sauce .. 200

HOMEMADE FETTUCCINI ALFREDO
In a creamy cheese sauce with green peas .. 200

OVEN BAKED CANNELONI
with spinach, capers and parmesan cheese .. 200

VEGETABLE RAGOUT
Served with steamed rice .. 200

DAILY VEGETARIAN DISH
Upon fresh market availability .. 225

Please Contact Extension 3.

Taxes as applicable.
WE LEVY NO SERVICE CHARGE

## The Indian Fare : Non-Vegetarian

SEEKH KEBAB
Tender minced lamb, flavoured with garlic and cooked on a skewer .. 205

MURGH KE TIKKE
Chicken kebabs from the clay oven .. 225

TANDOORI CHOOZA
Chicken marinated in spiced yoghurt, red peppers and freshly ground ginger and garlic. Cooked in the Tandoor .. 225

KEBABI KHAZANA
An assortment of kebabs for two.
A vegetarian selection is also available .. 295

MURGH-E-ZAIKA
Boneless chicken in the traditional tomato gravy with dried fenugreek leaves .. 225

MURGH KALI MIRCH
Chicken with freshly ground pepper corns .. 250

MASALEDAR GOSHT CHAMPEN
Cumin and coriander flavoured roast lamb chops cooked with onions and ground spices .. 250

MALABARI FISH CURRY
Pomfret in a spiced curry, served with steamed rice .. 225

HANDI BIRYANI
Lamb or chicken cooked with aromatic basmati rice.
Served with yoghurt .. 250

## The Indian Fare : Vegetarian

PANEER MAHAL KEBAB
Cottage cheese cubes marinated with cumin, yoghurt and Indian spices cooked in the tandoor .. 225

MEHFIL-E-KEBAB
An assortment of vegetarian kebabs for two, served sizzling from the clay oven .. 275

PALAK NOOR-E-NAZAR
Creamy spinach, corn and home processed cottage cheese lightly flavoured with royal cumin .. 225

NILGIRI KOFTA CURRY
Cottage cheese and spinach dumplings served in a spiced onion gravy .. 225

PINDI CHANNA RASILA
Ginger flavoured chick peas cooked with tomatoes and whole Indian spices .. 200

MATTAR PANEER DILDAAR
Cottage cheese and green peas with dill leaves .. 225

MAUSAM KI SUBZI
Seasonal vegetable of the day .. 200

BAZM-E-SHABNAM
Vegetable biryani served with yoghurt .. 225

CHAMAN KI DAL
Combination of lentils delicately tempered.
Please check for our selection of the day .. 150

BREADS FROM THE CLAY OVEN
A choice of Indian breads from the tandoor,
Roti, Naan, Paneer kulcha, Methi paranthas .. 60

Please Contact Extension 3

Taxes as applicable
WE LEVY NO SERVICE CHARGE

# ROUND THE CLOCK

## Appetizers

GARDEN SALAD .. 80

SALAD NICOISE
Tomato, green beans, tuna, eggs and lettuce salad .. 125

TOMATO AND MOZZARELLA SALAD
Served with an olive oil dressing .. 125

VEGETABLE SPRING ROLLS .. 150

MARINATED SKEWERED CHICKEN
With pepper corns and coconut, served grilled .. 175

## Soups

VEGETABLE BROTH
with juliennes of vegetables and fresh herbs .. 80

MULLIGATAWNY
Curried lentil soup .. 80

SOUP OF THE DAY
Ask your order taker for the daily suggestion .. 80

CREAM OF CHICKEN AND SPINACH
with cheese straws .. 80

## Sandwiches and Burgers

TRIDENT CLUB HOUSE
Three layers of toast with crisp lettuce, tomato, bacon, chicken and egg.
A vegetarian interpretation is also available .. 200

BETWEEN THE SLICES
Plain, grilled or toasted sandwich with a choice of ham, chicken, fried egg, cripsy bacon, tuna, tomato or cheese .. 150

GERMAN HOT DOG
A giant frankfurter with mustard and pickles .. 225

BURGERS
Chicken or Vegetable .. 200

## Desserts

CHOCOLATE AND MINT MOUSSE
Dark chocolate combined with cream and mint .. 150

ORANGE CREAM CARAMEL
Caramel custard with a delicate flavour of fresh oranges .. 125

WALNUT BROWNIE
American cake with walnuts baked to perfection .. 150

PASTRIES
A choice of black forest, chocolate and pineapple .. 100

ICE CREAMS
Vanilla, strawberry, chocolate, mango, coffee and kesar pista .. 100

BADAMI RASMALAI
Sweetened milk dumplings with pistachios .. 150

GULAB JAMUN
Served hot in sugar syrup .. 150

Please Contact Extension 3

Taxes as applicable.
WE LEVY NO SERVICE CHARGE

**Beverages**

TENDER COCONUT WATER .. 60

FRESH FRUIT JUICE .. 75

MILK SHAKES .. 75

COLD COFFEE .. 75

LASSI
Sweet or salted .. 75

FRESH LIME WATER OR SODA .. 60

ICED LEMON TEA .. 60

MINERAL WATER .. 60

AERATED WATER .. 60

TEA, COFFEE .. 60

HOT CHOCOLATE .. 75

# SNACKS

Served between 3.00 p.m. to 10.00 p.m

FRIED FISH FINGERS
with tartare sauce .. 175

DRUMS OF HEAVEN
Chicken wings with a tangy hot garlic salsa .. 175

SMOKED CASHEWNUTS .. 200

PAPRIKA CHEESE TOAST
Served gratinated accompanied with shredded vegetables in a honey lemon dressing .. 125

VEGETABLE CUTLETS .. 125

SAMOSAS
Served fried with sprouted beans .. 125

Please Contact Extension 3

Taxes as applicable.
WE LEVY NO SERVICE CHARGE

# OUR RESTAURANTS

## JACARANDA

The coffee shop

**BREAKFAST**
***(6.00 a.m. – 10.00 a.m.)***
BUFFET BREAKFAST COMPRISING OF
Juices, fruits, cereals, egg, paranthas and South Indian dishes
and
A' LA CARTE

**LUNCH**
***(12.30 p.m. – 3.00 p.m.)***
CONTINENTAL AND INDIAN BUFFET
Selection of soup, salads, maincourse and desserts
and
A' LA CARTE

**DINNER**
***(7.30 p.m. – 11.00 p.m.)***
BUFFET DINNER WITH A SELECTION OF
soup, salads, maincourse and desserts
and
A' LA CARTE

## NARMADA

The Indian speciality restaurant

**DINNER**
***(7.30 p.m. – 11.00 p.m.)***
***Light Indian Classical music daily***
TRADITIONAL THALI OF THE DAY
and
A' LA CARTE

11AHRS/2003.97

Dear Guest,

We hope your stay has been a pleasant one so far.

In order to give you the Real Taste Of India, our Chef has specially prepared a "Thali" dinner for you tonight. A "Thali" mean a metal plate containing 6 to 8 metal bowls which are filled with rice, curries, vegetables, and dessert.

Kindly look overleaf for the details of the Menu.

# *MENU - THALI DINNER*

| | |
|---|---|
| *1. Chass* | *Chilled Butter Milk tampered with Coriander served in a metal Glass. Famous in South India.* |

In Bowls from **R**eft to **L**ight :

| | |
|---|---|
| *1. Yoghurt* | |
| *2. Navrattan Pulao* | *The finest "Basmati" Rice cooked with Dry Fruits and Vegetables. Famous in North India and is of Moghul Origin.* |
| *3. Khasta Bhindi* | *Crisp deep fried Lady Fingers, famous in North West India.* |
| *4. Peeli Dal* | *A mix of yellow lentils, flavoured with turmeric and is famous through out India.* |
| *5. Rogan Josh* | *Tender Lamb pieces cooked with onions and spices. A typical Mughali Dish famous all over Central, Eastern and Western India.* |
| *6. Palak Paneer* | *Cottage Cheese cooked in a smooth spinach gravy. A typical North Indian Dish.* |
| *7. Aloo Anardana* | *Potatoes tampered with dried pomegranate, famous all over India.* |
| *8. Rice Kheer* | *"Basmati" Rice cooked in reduced and sweetened milk. Famous in North-East and South-West India.* |

Placed in the **Centre** are :

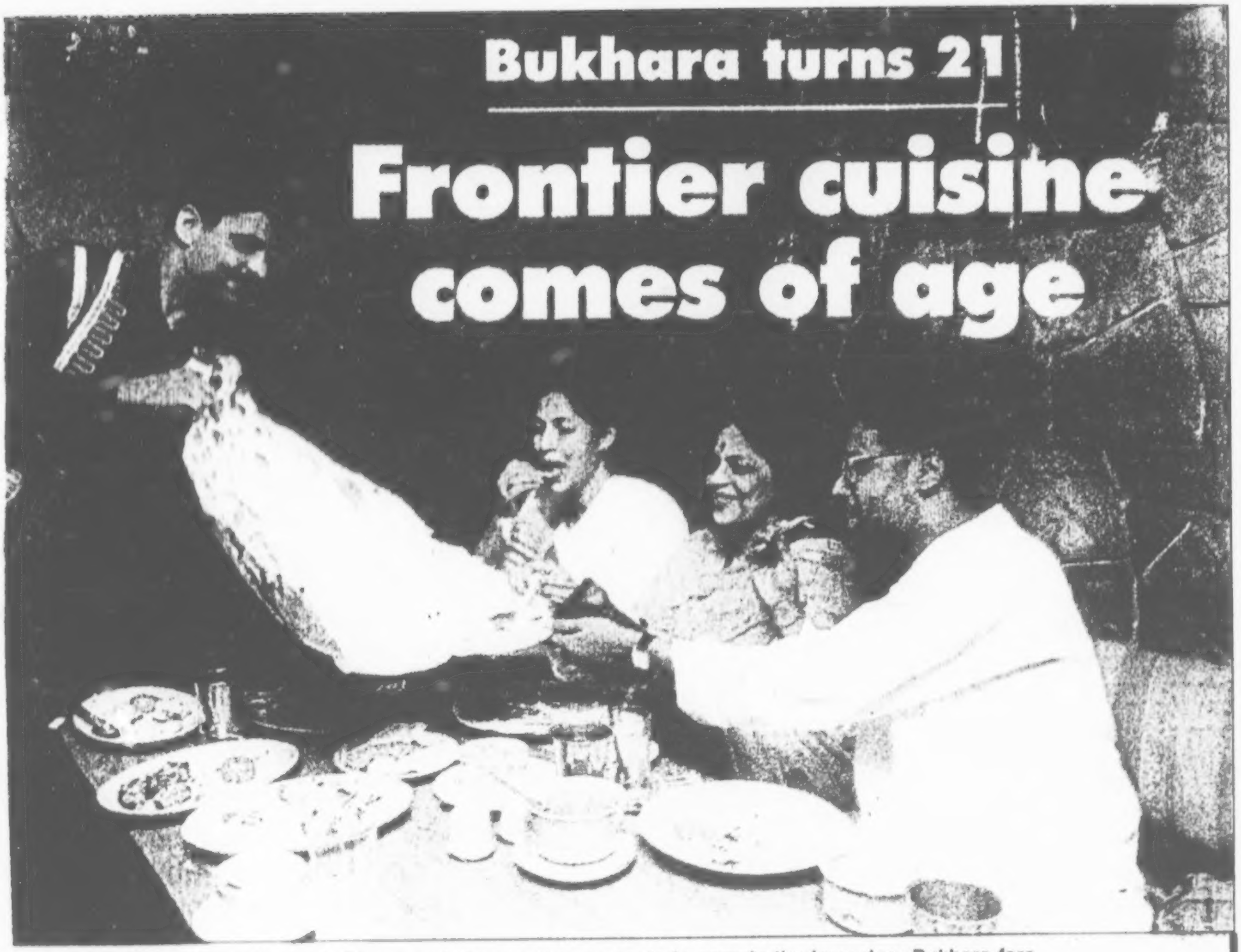
| | |
|---|---|
| *1. Lasooni Murgh Tikka* | *Tender bite size pieces of Chicken with a hint of Garlic. Famous in Punjab region of India.* |
| *2. Paneer Pudina Tikka* | *Roated escalopes of Cottage Cheese layered with Fresh Mint. Famous in the Punjab Region of India.* |
| *3. Aloo Kulcha* | *Leavened bread stuffed with potatoes and baked in a Charcoal fired Indian Clay Oven.* |
| *4. Pappadum* | *Crisp lentil crackers, famous all over India.* |

We hope you will find the "Thali" up to your expectations. However, in case you would like to have something from the Buffet, you are most welcome to do so.

*"Have A Nice Meal"*

## Bukhara turns 21

# Frontier cuisine comes of age



Uma Sharma (centre), Pawan and Renuka Verma regularly sample the legendary Bukhara fare

**Reena Singh**

They have all done it. Sat on low wooden stumps without so much as a support for their famous backs. Dug their teeth into legs of lamb and partaken of *kababs* and *burras* without so much as a spoon or a fork. Yet, despite the near-minimal decor, the near-rustic ambience, they have gone back, but with one refrain: That a meal at the Bukhara was finger-lickin' good. And worth getting their fingers dirty, time and again. (The Bukhara makes it a point to do away with forks and knives).

The north-west frontier cuisine that Maurya Sheraton's Bukhara cooks up is, by now, as legendary as the list of international celebrities who have visited it ever since the restaurant opened in 1977. Coming up on August 12 is Bukhara's big birthday bash, when it turns all of 21 years old.

Over the years, Bukhara has remained as popular as when it first opened. It has been visited by everybody who is a somebody, whether in India or abroad. Tables are never empty — royalty, fashion divas, socialites and even the famous Spice Girls, complete with Ginger then, have had to wait, sometimes in vain for a table here.

Hillary Clinton has had a meal here. Daughter Chelsea has had more than one meal. Crown princes — Phillip, the Duke of Edinburgh, Jigme Singhe Wangchuk of Bhutan and Akihito of Japan have feasted here on the legendary Murg Malai Kababs and the celebrated Sikandari Raan.

The next time you visit the Bukhara, you may be sitting on the same stool, perhaps even donning the same bib as the Microsoft Mughal Bill Gates did while there. Certainly the by-now famous Daal Bukhara, the more tender than tender Murgh Malai Kababs, the Mutton Burra and the melt-in-the-mouth pudina parathas have had several famous takers. Including the Sultan of Brunei who, if money could have its way, would have loved to transport the restaurant, chefs, *et al*, back to his home country.

Another person who made a strong pitch for chef Madan Lal Jaiswal, who started it all off, was prize fighter Mohammed Ali in 1979. But even his 'butterfly' moves, his 'bee stings', couldn't persuade Chef Jaiswal to leave.

The Maurya would never give up its proverbial golden goose. The restaurant rakes in, at an average, Rs three lakh a day. The restaurant is rarely empty despite the astronomical prices of the fare here (a meal could set you back easily by Rs 1,200-Rs 1,500 per head). And going by the cackle and the cacophony of people clapping at the sight of the Rs 450 giant Family Naan and the satisfied sighs after grabbing a piece of the famous Sikandari Raan at Rs 750 per plate, it is apparent that people, foreigners especially, love the whiff of charcoal-grilled food, and the novel experience of going absolutely native. There used to be a virtual stampede when the restaurant opened as a modest 40-cover eatery 21 years ago. The seating capacity has more than doubled, with extra tables being laid out beside the swimming pool when the weather is kinder. Reservations are a must at dinner time, otherwise ambassadors, movie stars, cricket heroes and fashion gurus have to wait patiently to sample the typical Peshawari fare served here.

Not the least of Bukhara's attractions is the glass canopy at one end of the restaurant that cordons off the open kitchen where all the food is grilled, rotis baked and the roomalis crisped on the upside down tavas. The ambience is warm and informal and diners routinely jostle their way into the kitchen, click photographs to take back home and sometimes sample food, hot off the tandoor. "What you get here, rotis and kababs, are all virtual pieces of art," says bureaucrat-writer Pawan Verma, a familiar face at the Bukhara.

And, despite complaints intermittently that the quality isn't quite what it used to be 21 years ago, the teaming crowds that turn up night after night perhaps best sum up the overwhelming pull of the appetising flavours that waft out of Bukhara.

Happy Birthday!

**Traditional Cuisine**

PURABI DASGUPTA

# Keep Your

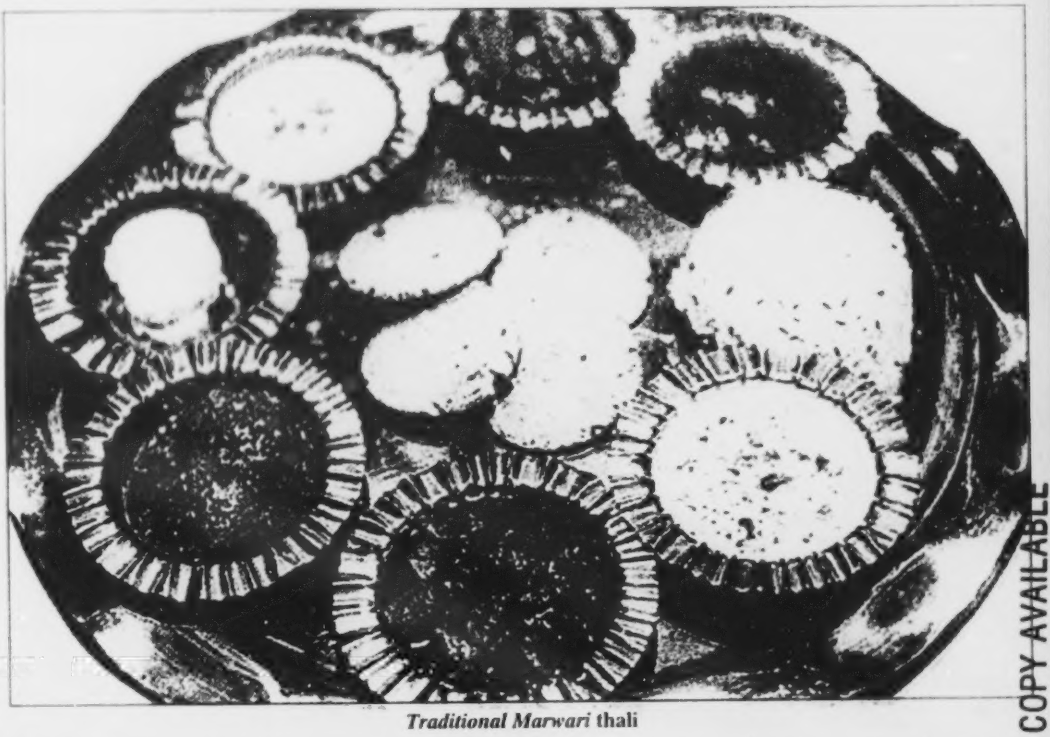
*Marwari cuisine goes back to the Rathor rulers of a faraway region in Rajasthan, and is basically dry in character. But make no mistake, it's food that beats the heat and makes you equal to the challenges of extreme climate*

*Missi Roti*

INDIAN cuisine has been the happy hunting ground of gourmets and epicures down the ages. And why not, because in all probability there isn't another country with such a mind-boggling variety of cooking styles and eating habits. This write-up is the first of a new series that endeavours to take readers across the length and breadth of the Indian sub-continent on a breathtaking hunt for food that is both traditional and exotic. And, above all, easy to prepare at home.

We raise the curtain with food from Marwar, that faraway region in Rajasthan. The historian in you might well prompt you to call it food from "the region of death" because Marwar derives from Marusthali, which means a land that has gone dry and where there is no life. But light up the gas, or stoke that oven, because Marwari cuisine goes back to the Rathor rulers of Marwar. The Rathors called themselves the "children of the sun" and some of them believed they were born out of the "rahat" or spine of the god Indra.

The Rathor sovereignty terminated around the 12th century but the influence of the cuisine continued, even though new cooking styles came to Marwar in the wake of the invasion of Shihabuddin, the King of Ghor. Anyway, the basic characteristic of Marwari food is its dryness, which goes with the spirit of the dry region. But make no mistake, it's food that keeps you cool and makes you equal to the challenges of Marwar's extreme climate.



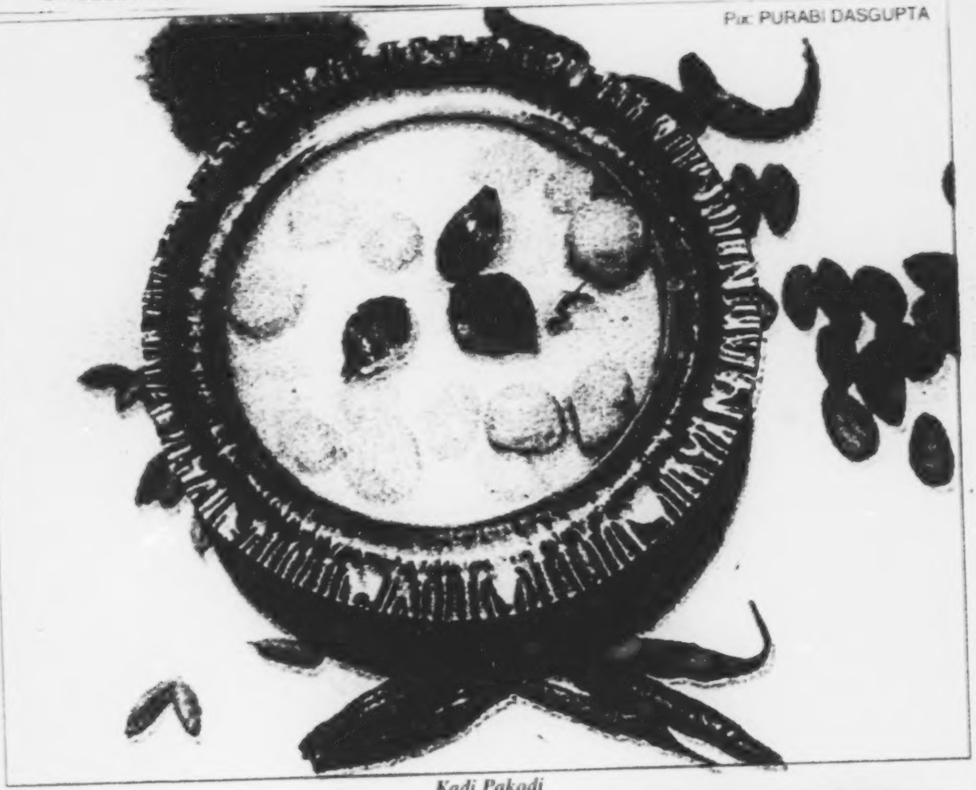
***Traditional Marwari* thali**

Apart from Marwari kitchen cupboards in homes away from home, from where recipes are downloaded by the day, The Park's Saffron in Calcutta serves an authentic Marwari *thali* and Chef Sanjeev Takyar has turned out these three dishes. You might have noticed how stuffy it's been of late, for all that it's supposed to be the monsoon. Remember, this food's supposed to beat the heat.

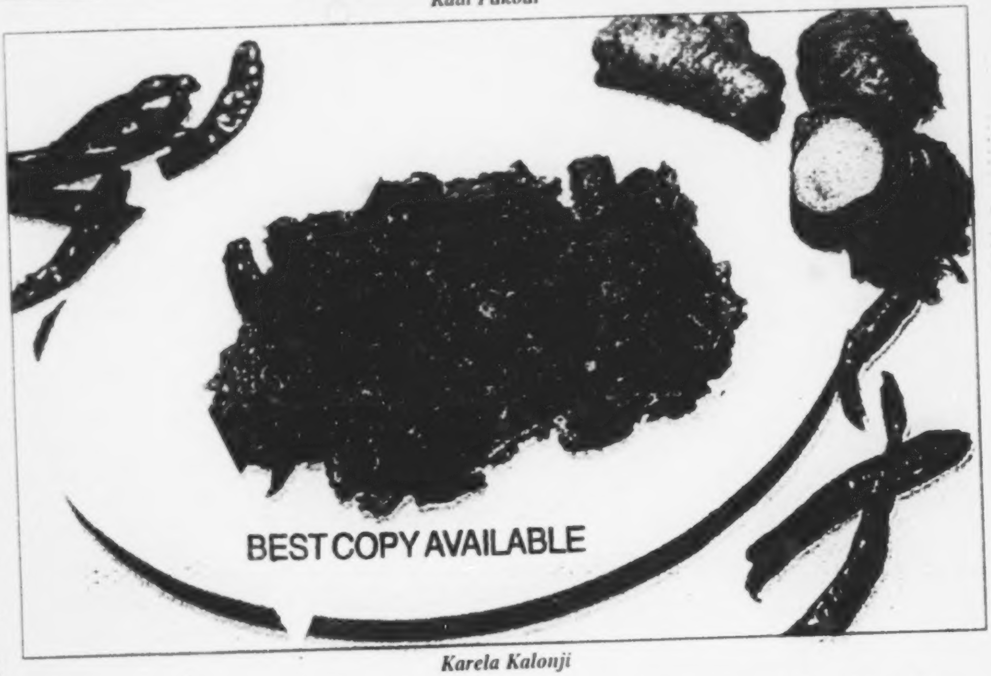
**Kadi Pakodi:** Make a very thick, fluffy batter with 150 gm of *besan*, a pinch of *ajwain*, another of *hing*, 50 gm of sugar,

# Cool

Pic: PURABI DASGUPTA



Kadi Pakodi



Karela Kalonji

water and salt to taste. Heat oil in a saucepan and then over a medium flame fry small *pakodas*, drain and keep aside. Now beat 250 gm of yoghurt very smoothly and reserve. Heat pure *ghee* in a wok and add a few pinches of whole *jeera*, 15 curry *pattas* and two whole red chillis. Stir in all the spices well and when the chillis crackle, add a half-teaspoon each of garlic and ginger paste, a quarter-teaspoon of red chilli powder, half a teaspoon of *haldi* powder and the same of *jeera* powder. Allow to cook before adding the beaten yoghurt, folding in well and allowing to boil. Dilute 10 gm of *besan* with water and add to the yoghurt mix, with salt to taste. You could, if you prefer, add more dried red chilli. Now put in the *pakodas* and cook till soft and spongy. Before serving, sprinkle with chopped coriander. Best with *missi roti*.

**Missi Roti**: Make a dough with 250 gm of besan, half a teaspoon of *jeera* powder, the same of *ajwain*, red chilli powder and ginger paste. The dough should be very dry and a little stiff. Reserve in a plate and cover with a moist cloth for half an hour. Divide the dough into eight balls of equal size. Roll each into small, thick roundels (about two inches in diameter). On a hot iron *tawa*, roast these *besan rotis* slowly so that they're properly cooked. Heat *ghee* in a *kadai* and deep fry the roasted *rotis*. Drain and serve hot with *kadi pakodi* and *karela kalonji*.

**Karela Kalonji**: Select a long *baingan* (brinjal) and cut into two-inch pieces. Cut 150 gm of *bhindi* (ladies' fingers) into medium sized pieces and two *karelas* (bitter gourd) into small pieces. Wash all the vegetables and pat dry. Heat *ghee* in a *kadai* and deep fry all the vegetables, drain and reserve in a bowl. Temper *kalonji* (black cumin) in the *ghee*, allowing it to crackle, stir in one finely chopped onion. Saute till golden brown. Add half a teaspoon each of ginger and garlic paste. Cook for some time before adding one medium chopped tomato, cooking for a further two minutes. Now add the fried vegetables, mixing in well. Season with salt. Before serving, sprinkle over with finely chopped coriander.

# HANDI-FULS OF DELIGHT

TEXT BY BEHRAM CONTRACTOR
PHOTOGRAPHS BY NOSHIR DESAI

**The bara handiwalas of Mohammed Ali Road, the Muslim quarter of Bombay, serve a culinary delight.**

If you want to eat *bara handi* (literally, food from 12 pots), you have to be at Valibhai Payawala's shop at 6 o' clock in the morning. Make it 6.30, if you are a late riser. The shop is in the inner city, the Muslim quarter of Bombay, and, within the Muslim quarter, the Bohri quarter, Bohri Mohalla. The Bohris are good trenchermen, they love their food, and they eat meaty breakfasts. By the time you reach Valibhai Payawala, the shop will be full and the *handis* half empty. They come after the morning prayers at the nearby mosque, first pray to Allah, then *pate* (stomach) *pooja*.

It is a peculiar shop, the cooking is done at the entrance. But that is a Middle East custom, you see the food before you enter the shop and eat it. And there are a few goats tied outside in the lane, so you see your food even in its unprocessed state.

The food is cooked all night, in 12 *handis* sunk in the ground, their lids sealed with flour dough, to ensure the steam does not escape. And it is cooked on slow coal fires, various meats in their own juices, and some lentils.

Valibhai Payawala is one of some half-dozen eating establishments in the city that do *handi* cooking. There are *bara* (12) *handis*, *dus* (10) *handis* and *saat* (7) *handis*. They are all situated within a half mile of one another in a stretch extending from Minara Masjid, through Bhendi Bazar, to Nagpada. I do not know them all, but there is Mohammed Khan Rotiwalla the Nagdevi Stree Handiwalla and Suratwalla, among others.

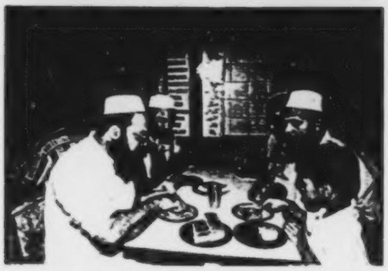
If I have chosen Valibhai, it is because they are my friends, their establishment 100 years old. The same shop, the same business, the same food over 100 years. There was the grandfather, Haji Mohammed Hanif who started what was then known as the *bhatiyarkhana*, then father, Haj Vali Mohammed and now the sons. They are four brothers, one of them a doctor, practising in suburban Kurla though during the month of the Ramazan, he is at the shop in the nights to help out.

The unique thing about *hand* cooking is that it is practised in othe cities too. You find the same cooking methods in Mughal Delhi, Nawab Lucknow, Nizami Hyderabad.

AJMERI
HARBAT
SADA
MILK
OSE
HAHI
CHUS
MANGO
PINEAPPLE
ORANGE
FALSA
KALAKHATTA
LEMON
SHIKANJBEEN
BEL
ANAR
BADAM
PISTA

ABOVE: *Ajmeri sherbetwalla at Bohri Mohalla.* RIGHT: *Bara handis at Valibhai Payawala.*

**For his favourite customers, the handiwalla puts a spoonful of marrow on the top of the handi food. Of course, he charges them extra, after all, it is business. Don't forget to get your lamba pau from outside.**



*TOP: Rich, meaty gravies, each made with a different part of the animal. ABOVE: Typical diners at Valibhai Payawala. RIGHT: Lamba pau breadman next to Valibhai's.*

So let's go to 45, Guzer Street and try the *bara handi*. One of the brothers is sitting on the platform where the *handis* are buried. With a ladle, he takes out meats and gravies to fill tiffin-carriers for the takeaways, plates for those eating in the restaurant. Two of the *handis* have *payas* (trotters), one beef and the other mutton, the meat sticking to the bone like gelatine. Use your hands, though you will be given a spoon, take the bone to the mouth and suck the juices, bang it a little on the plate to shake out the marrow. It is good manners. Another *handi* contains *topa*, or *tupa*, the meat around the neck of the animal, what fancier people call salami. This meat, with the full night's cooking in its own juices, has become particularly tender, you can cut it with the edge of a spoon. Next, *pichota*, the rump of the animal and the tail, it is meat and bones, not as good as the *topa*, but also in demand.

You may have *suka*, dry meat, with gravy from another *handi*, and to get away from meat, there is the *handi* with *harisha*, three lentils mixed together with chick-pea flour, besan, and milk. And there is a *handi* with a rich soup, guaranteed to remove the cold from your nose and chest. A couple of *handis* are not buried in the clay but kept on top of the platform. One o them contains the marrow, which woul melt if put next to the fire. This is th best thing on offer. For his favourit customers, the *handiwalla* puts spoonful of marrow on the top of th other *handi* food. Of course, he charg them extra, after all, it is business. S which *handi* do you choose to eat from That is a problem. The best thing to d is to ask for a *bhel*, which is a littl of each, with the marrow to top it. An don't forget to get your *lamba pa* from outside. The breadman sit outside the shop with his *lamba pau*, i has a touch of sourness about it and taste of wood smoke, having been bake in wooden ovens, which proliferat around Null Bazar. You may also buy *tandoori roti* from a *rotiwalla* thre shops down the lane.

The restaurant is open throug the day, but it is not *handi* food. It i more regular food, with *bhuna gosht*, and *dal gosht* and rice.

But the real pleasure is whe the *handis* are unsealed, in the early morning, between 5 a.m and 5.30 a.m., the earlier the better. Or in the month of Ramazan, when the faithfuls break their fast after sunset. The *handiwallas* open after the evening prayers and the traditional consumption of palm dates and fruits, and all night the streets are crowded with people and food is served from the *handis*.

The streets then take on a different air, entire families arrive on single scooters, boys play cricket in the lanes, the *handiwallas* close their shutters periodically to allow people inside to finish their food before taking a fresh lot in. And all around the *handiwalla*, *kababs* are grilled in the open, liver and brain are fried on the spot, the Ajmeri *sherbetwalla* mixes his *sherbets* and the Taj Mahal ice cream shop, 110 years old, does roaring business selling hand-made custard apple ice cream.

For a *bara handi* breakfast, visit Valibhai Payawala, Bori Mohalla, 45, Guzer Street, Bombay-400 003. Tel: 346 6401. ❂

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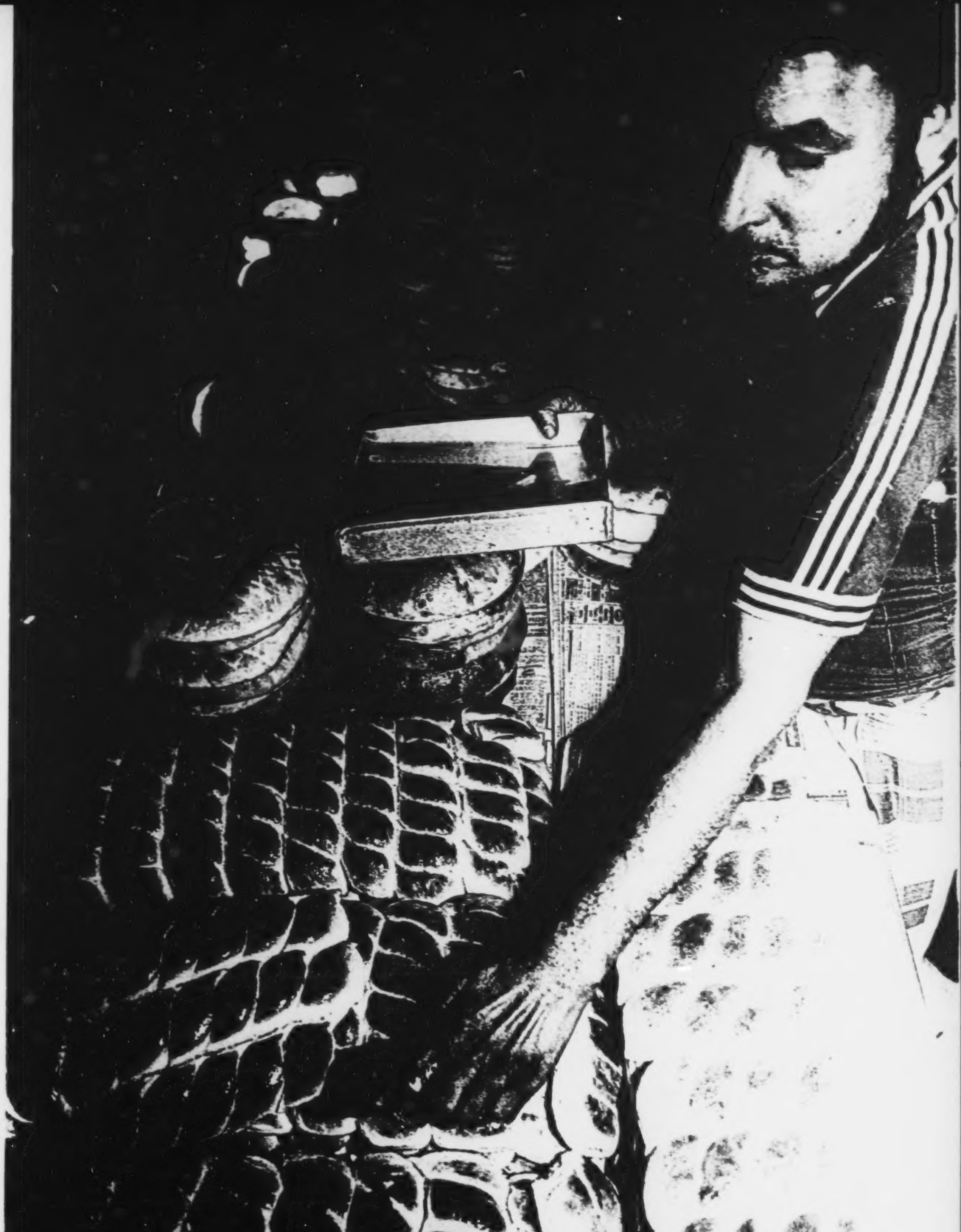


# POTS AND BELLIES

**The Gujaratis were among the earliest settlers of Bombay. They largely migrated in the 17th century when the British permitted freedom to trade. Their single-minded business instinct was tempered by only one other characteristic; their passion for food. They lived in self-contained residential complexes, the hub of which was the community kitchen. Their cooks, whom they call maharajs, the same word for emperors, were a specialised community. Over the years, these community kitchens evolved into farsan mandals that sell finger-licking goodies.**

TEXT BY MEENAKSHI SHEDDE
PHOTOGRAPHS BY NEELESH KALE &
SAM BAILEY

Ask any Gujju (endearment for a Gujarati) how life is treating him, and chances are he will say, "*Bas, maja ma*," – just great, I'm having fun. And there is one important factor that contributes largely to his state of well-being. Whatever else he may specify in his matrimonial advertisement in the Sunday morning papers – 'wheatish complexion, five feet three, no spectacles, non-Manglik, Lohana/Jain,' the one requirement that dwarfs all the rest is those two words that hold the key to marital bliss: 'home-loving'. In short, she must be a great cook, else poor Ms. Photo Returnable can apply at the next encircled box number!

And Gujarati wives seldom get away with giving their husbands heaving *thalis*, meal platters, for millions of lunches and dinners over a lifetime – they must be able to make a variety of interesting in-betweens too. Namely, *nasto* and *farsan*. *Nasto* means breakfast and *farsan* has, in fact, long been promoted from an in-between to a part of a full-fledged meal itself.

Now, I'm not a Gujju wife. But if I were to look at it purely objectively, it would seem as if the Gujju's single-minded business instinct is somewhat tempered by the fact that he is a connoisseur of food, or at the very least, a plain, unabashed foodie. And this applies equally to the suave, French-speaking Gujju diamond dealer in Brussels, to the American-drawling motel-keeper in Florida, to the nondescript, *dhoti*-clad ledger-keeper in Jhaveri Bazaar in Bombay. What links these globe-girdling Gujjus is their passion for food. And so, enter the *maharaj*.

You've got to hand it to the Gujjus. They are the only race, so far as we know, who call their cooks *maharajs*, the same word they use for emperors. (They certainly seem to have their priorities in life right!). *Maharaj* is a term for an eminent person and was traditionally used for cooks who were from the Brahmin priestly class in the temple kitchens. The kitchen in a Gujju home – a spotlessly maintained one at that – is the *maharaj's* domain. The *maharaj* himself follows a scrupulous code of personal cleanliness. It is only after a bath in the early hours of the morning that he enters the kitchen, clad in a clean *dhoti-kurta*. The kitchen is swept clean numerous times a day and footwear is not permitted inside.

There is a clear pecking order between *nasto* and *farsan*. While both are delicious nibblies, *nasto* comprises nibblies eaten for breakfast and is strictly Nibbly Junior, while *farsan* is Nibbly Senior. And with a distinctly higher t.s.i (tummy space index). *Nasto* includes *sev*, *gathia*, *chevdo* and *bhooso*, which means sawdust, and is a mixture of all of the above. While *chevdo* is made of beaten rice, spices and peanuts, *sev* and *gathia* come in a number of varieties. They are essentially made from a dough of besan (chickpea flour) with various combinations of spices that is forced through suitable presses directly into boiling oil. Nonetheless, they assume different avatars every time. *Sev* consists of delicate yellow brittle squiggles, Bhavnagari *gathia* is thicker and cylindrical, *papri* is wafer-like, while *fafda* is a foot-long wavy, crunchy strip. Each of these is parcelled into newspaper cones at Bombay's innumerable farsan shops and taste terrific with fried Bhavnagari *fiki mirch* (mild green chillies) which are packed in separate cones.

*Farsan* has a little more gravitas, not to mention besan and stuffings of all sorts. People have been known to totter away weakly after a meal entirely of *farsan*, too stuffed to proceed to the other courses. These consist of *khaman dhokla*, *khandvi*, *bhajia*, *methi muthia*, *kachori*, *samosa*, *patra* and more. *Khaman dhokla* is a fluffy, steamed savoury topped off with *chonk* (seasoning); *khandvi* is a kind of buttermilk and besan-based roll; *thepla* is a dense, spicy *paratha*; *methi muthia* is a shallow-fried fistful of batter with fenugreek

*CLOCKWISE FROM LEFT: Preparation of hot-selling items bhel, patra, khandvi and papri at the Shree Jain Mahila Samaj, Marine Drive.*

leaves; *kachori* and *samosa* are both vegetable stuffings coated with batter and fried crisp while *patra* is colocasia leaves sandwiched between layers of batter, steamed and sliced to reveal delicate whorls of green and yellow. Most of these are accompanied by sweet chutney made of dates and raisins and a hot chutney made with fresh coriander leaves and green chillies. And sweets like *jalebis* and *shrikhand*.

There are strict rules governing the social habits of different *farsans*, just as there are among different sub-communities of Gujaratis themselves, and you ignore them at your own peril. Jagdish Gandhi, businessman, historian and custodian of Gujarati foodlore, reveals for instance, that the Gujarati *kachori* or the *fafda* simply must be eaten with *jalebi* if you have a sweet tooth, or *chilli bhajias* if you have a hot one. *Dal moth chivda* must be eaten with the sweet Surti *ghari* and *saatha*. *Khaman dhokla* is often eaten with *aamras* (mango pulp). And *dhoklas* and *dudhpaks* are as star-crossed as Montagues and Capulets and ne'er the twain shall meet, though a *dhokla* may happily date a *shrikhand*, with the village elders nodding in benign conspiracy.

Apart from a great variety of *nasto*, *farsans* and sweets, often using the same basic ingredients, there are also regional specialities. And the votaries of each will look down their twirled moustaches at votaries of the others. Thus I speak in tones of reverence of Bhavnagari *gathia*, Jamnagari *khasta*, *ghari* and *ghevar* from Surat, *sutarfeni* and *salempak* from Khambhat, and *bajra rotlo* and *tal samkhli* (a thin sheet of sesame seeds and jaggery) from Saurashtra. The last, in the olden days, came with the occasional coin pressed into the sheet which children were specially assigned to pick out.

Thus while originally Marwaris from Rajasthan tended to specialise in *mithais* and Gujaratis in *farsans*, now everybody just about prepares everything. Even so, the trade is averse to interlopers, and tries to keep it as close to the lineage of *maharajs* from Rajasthan and Gujarat as possible.

**Nasto means breakfast and farsans are snacks that also occupy pride of position on the thali as a component of a full-fledged meal. The word 'farsan' originates from the meaning 'fried'. Though most snacks are fried, some like the dhokla, khandvi and patra, are steamed. The fried snacks are essentially made of a dough of chickpea flour, with various combinations of spices, that is forced through suitable presses directly into boiling oil. Nonetheless, they assume different avatars every time. Sev comprises delicate yellow squiggles, Bhavnagari gathia is thicker and cylindrical, khakra is a thin, crisp pancake and kachori is vegetable stuffing coated with batter. Chilli pickle is an all-time favourite.**

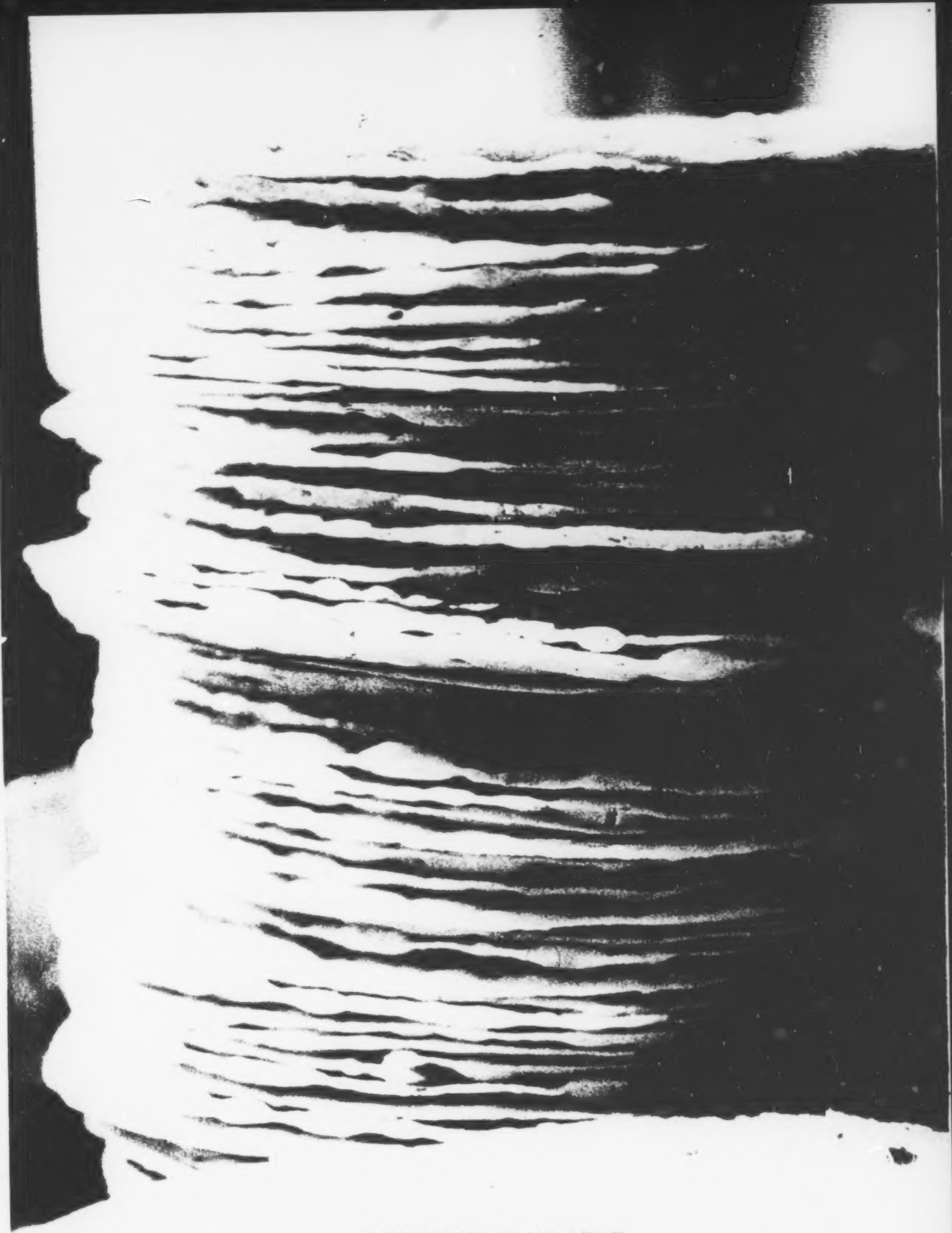
*Maharajs* originated from Dungarpur in Rajasthan. The Dungarpur species are considered in a class apart from those from Banswada, Jodhpur, Udaipur or Bikaner. They actually started out as *bhandaris*, or those in charge of the foodgrain stores of royalty in the princely states. Cooks in these circles are invariably Brahmins, and sweets continue to be made in pure *ghee* and offered to the gods before being sold.

The 'import' of Gujarati and Rajasthani *maharajs* to Bombay goes back more or less to the time the Gujaratis from mainland Gujarat, Kutch and Saurashtra migrated in large numbers, along with Marwaris from Rajasthan, to what was then the Bombay Presidency. The bulk of them came here shortly after the British came to Bombay in the 17th century, because the British permitted freedom to trade and freedom of religion. The earliest of the Gujaratis were traders and these formed the backbone of the East India Company, which set up the town in collaboration with the locals. By the 18th century there was a sizeable Gujarati population living in the walled town – the Fort area – and Bazargate, along with Parsis and Muslims. The fire of 1803 encouraged many natives, especially Hindus, to migrate outside the Fort area to places such as Bhuleshwar, Kalbadevi, Girgaum, C. P. (Cowasji Patel) Tank and Thakurdwar.

Here, they set up self-contained, residential complexes known as *wadas* in which each community lived. Each *wada* had its own temple, well, *dharamshala* or lodging, function hall and community kitchen. There were no hotels or eateries then, so the community kitchen catered all the meals, snacks and sweets, particularly during weddings, for the *baraat* or the guests from the bridegroom's side. During festivals like Navratri, Dassera and Diwali, during October and November, the kitchen prepared traditional sweets and savouries for community celebrations.

Over the years, these community kitchens evolved into *farsan mandals* and the *maharajs* who were employed by the

*RIGHT: Savoury wafer-thin and crisp khakras, made of wheat flour and spices, are enjoyed with chilli pickle as a delicious, any-time snack.*



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caterers who ran these kitchens, set up shop on their own, sometimes in league with their erstwhile bosses.

The kitchen attached to the community halls were busy only during weddings and festivities, so *maharajs* started to make other goodies for which they could secure orders all the year round. For a while they seemed to be under threat as joint families in the *wadis* dispersed and community kitchens came under attack from popular tastes and enticements from far-flung regions, from South Indian *dosas* to Bengali *rasgullas* to Chinese noodles.

But with unerring instinct, the *maharajs* only put up their antennae. Those attached to families got more ambitious. They worked for two or three households at a time and took on freelance assignments. The sharpest ones branched out into the more lucrative *farsan* business full time. And their clientele has long crossed the boundaries of the Gujarati community. Appetites don't care for geography. Thus while there are a few well-known *farsan* and sweet shops like the Jain Mahila Samaj near the Marine Drive flyover, Gogo's behind Wilson College off Chowpatty, the Shree Hanuman Mishthan Bhandar at Walkeshwar and Amrit Bhog on Napean Sea Road, there are innumerable *farsan* shops all over Bombay.

**The profession of the maharaj, cook, is largely handed down over generations. Maharaj is a term for an eminent person. Originally, maharajs were Brahmin cooks attached to community kitchens. He enters his kitchen only after an early morning bath and prayers. Dressed in a clean dhoti-kurta, hygiene is a way of life. The floor is swept clean many times a day and footwear is not permitted inside the kitchen. Combined with his culinary skills is his shrewd business instinct. Weathering social change, the sharpest ones branched out into the lucrative farsan business full time. Some have migrated with Gujarati families abroad, and their dhoti-kurta has given way to safari suits.**

This includes hugely popular ones in the suburbs, just outside Malad station and Borivali station on the west where, apart from the regular clientele, they have the consistent patronage of picnickers heading for Manori and Gorai beaches. The old-fashioned tin boxes and serving measures have been replaced with gleaming, glass-fronted displays with halogen lamps, and the chutney-on-a-leaf must now be slurped from plastic pouches, but the staff will still let loose the occasional loud, long and contented burp.

Indeed, many *farsan* businesses now have regular home deliveries as housewives prefer to order them fresh every week. Other housewives get together to make the *farsan*, as they have been doing at the popular Jain Mahila Samaj for the last 25 years. "It is run by a trust that employs middle-class, Gujarati women who are illiterate and are not encouraged to get regular jobs outside the home. They make everything themselves, except *puris* for the *pani puris* and the *sev*, which we leave to the *maharajs*, as they are rather strenuous to make," says their president, Sushilaben Dalal: The women make *khakras, theplas, sev, chevda, chakri* (made from rice flour) which can last a week or more, as well as fresh items that must be consumed the same day like *khandvi, patra, handvo, dahi wada, khaman dhokla* and *ghogra*, a kind of *kachori* stuffed with corn and peas. They also make *papads, masalas* and chutneys. Busy as beavers, they sometimes accept *farsan* made by some of their women at their own homes but the demand is too great to take on home deliveries.

Traditionally, *maharajs* are Brahmins and orthodox Brahmins do not trade or cross the *kalapani*, as the oceans surrounding India were once called. But any number of *maharajs* have migrated to settle with Indian families abroad. Some have travelled round the world from Europe to Japan, and their *dhoti-kurtas* have given way to safari suits and ties.

But perhaps some of the most dramatic changes in the maharaj's routine have been at home. Nathu Maharaj Fatehpurwala whose reputation was built on *dalbati churma* and *kaju katli*, now undertakes catering as well, and his menu is somwhat terrifying in its range. It is a preview of the menu of the global village by 2000. You can see the culinary vengeance with which his humble *kachori* and *dahi wada* now rub shoulders not just with local johnny-come-latelys like "Tiranga Wada", but multinational parvenues like "Coin Pizza, American Chopsi, Manistroni Soup, Vegetable Kelaloni, Spannij Bolonize, Banana Spannij Pai and Vegetable Ploratian," not to mention "Woldrop Salad". He does not even spare desserts like "Fruit Jelly Trifyal" and "Baker Peayer".

Fatehpurwala, the proprietor of Shree Hanuman

Mishthan Bhandar, who hails from a family of Rajasthani cooks, chucked up his 'service' with a salary of Rs.50 a month and started to make *ladoos* in a space he bought in Baba Bhagwandas' *akhada* (wrestling ground) in Walkeshwar around 1970. Today he estimates that he earns Rs.1,00,000 a month on *farsan* alone from four outlets in Bombay, not counting the catering and home deliveries. He has preferred to steer clear of pre-packaged retailing as "it would take away the freshness of the flavour," he says. Even as his son and daughter-in-law take on his mantle, the old man has set his sights elsewhere: setting up watersports in the deserts of Rajasthan. For Fatehpurwala, it seems, the profits from *farsan* are no big deal. They are just in-betweens.

**Jain Mahila Mandal**

Just off V. P. Road, as you approach Sikka Nagar, is the Jain Mahila Mandal which was established by the Kathiawad community of Saurashtra in 1979. The ladies employed follow recipes provided by the *mandal* and prepare all the food in the *mandal's* kitchen.

Only during the Diwali season, the *mandal* also employs *maharajs* to help cope with the large orders that come pouring in for festive sweets.

The Jain Mahila mandal makes a huge variety of dry *farsan*, snacks and *mithai*. They are particularly famous for their *kaju puri* and winter sweets such as *sukhdi* made with jaggery, wholewheat flour and *ghee*. *Sukhdi* is a nourishing sweet that is also given to those convalescing from an illness. While the *mandal* itself does not export its products, individual businessmen buy them in bulk for export. Their Kathiawari-style mango pickles, *theplas*, *papads* and *masalas* are very popular. They also take orders for picnic lunches and dinner parties, providing not just snacks but *puris*, *rotlis*, *shaak* (vegetable dish), *shrikhand* and pulao.

**Shri Paramhansji Shri Ganeshji Pandit Memorial Trust**

Over 28 years ago, this trust was founded by Marwari businessmen in the Shri Venkateshwar Mandir Complex at Narayan Wadi on Khadilkar Road in Bhuleshwar. Today, it welcomes donations from other communities as well. It employs only Rajasthani *maharajs* who live in but gives jobs to other people from other communities, in departments other than cooking. People donate their services to the trust, thereby reducing their costs. The trust prepares a select list of items.

The emphasis is on quality ingredients, purity, hygienic preparation in the trust's kitchen and reasonable prices. It charges fixed rates for everything, whether you buy a quarter kilo or 500 kilos.

During Diwali, the trust prepares *mohan thal* and *kopra paak*. *Mohan thal* is part of the traditional *bhog* offered to Lord Krishna.

The trust uses the profits made by the sale of sweets and savouries to finance drinking water fountains and provide medical assistance to the needy, from any community. They have already established drinking water fountains at Kalbadevi, Bori Bunder and Juhu. Every Thursday, *bhajans* are organised in Zaveri Bazar and in January every year, a *mela* is held in Malad to mark the death anniversary of Pandit Ganeshji.

"We don't sub-contract or take items prepared by other caterers," says Dwarka Prasad Badetia, managing trustee. "Every item that we make is absolutely genuine; for instance, our *kaju katli* is made only from cashewnuts and sugar. No *mawa*, no peanuts. And yet, it is priced at just Rs.190 per kg., while other places charge at least Rs.260 per kg."

**Matrusamaj Udhyog Graha**

Established over 40 years ago by Ahmedabadi Jains and Maharashtrians, Matrusamaj Udhyog Graha is part of the Vishwavatsaliya Prayojit Sangh. The Udhyog Graha is a 'ladies only' affair but it employs both Maharashtrian and Gujarati women. The items produced by them are sold only through their own retail outlets; one is near Madhav Baug,

*TOP: A variety of savoury chevdos, mixtures of differently shaped squiggles of spicy, fried chickpea flour, an all-time snack.*

Bhuleshwar, and the other is near the Kothari Hospital in the C. P. Tank area.

While *sukha nasto* (dry *farsan*) is available through the day and is held over for the next day, items such as *khandvi, khatta dhokla, handvo, puris, chapattis* and *bhakri* are sold before sunset on the day they are prepared, as per Jain tradition. A seasonal vegetable dish is available four days a week and a *katol* (lentils or pulses) is on the menu, on the other two days.

"Every lady specialises in the preparation of certain items and those are always assigned to her", explains Ekta Trivedi who manages the Udhyog Graha's kitchens. 80-year-old Shantaben has been cooking for the Udhyog Graha right since its inception and whatever she prepares tastes as good today as it has always done, all these years. Savitaben is another veteran, famous for her *kaju katli, churma ladoo* and *bajra wada*.

The Udhyog Graha kitchen prepares everything in traditional metal utensils and uses only charcoal *sigris* for cooking. No non-stick, no electric hot plates, no gas stoves! No wonder their food still retains all the original flavour, texture and aroma.

During Diwali, the shops are open from 7.30 a.m. right upto 10 p.m. Certain sweets are made in pure *ghee*. Their popular items include *samosas, kachori, khakra*, pickles, *jalebi* and *saatha*, a sweet made with flour, sugar and *ghee*, topped with pistachios.

An entire floor houses the pickle business. The Udhyog Graha makes various kinds of mango pickle, lime pickle and *dalaa* pickle which is eaten with *bajra rotlo* in summer. *Dalaa* is a tender, green stalk: it is pickled with finely ground fenugreek seeds, salt and groundnut oil. Pickles and *khakra* made by the Udhyog Graha are also bought by people going abroad where they are justly famous for their quality and authenticity.

The Udhyog Graha caters to parties and weddings. Apart from the vegetable of the day, it prepares the famous vegetable dish *undhiya* during the winter months. The ladies who do the cooking are paid on a weekly basis, depending upon the number of hours they have worked and the amount they have prepared. Other persons employed by the Udhyog Graha are paid on a monthly basis.

**The authentic Gujju will reveal the delicious guide to eating farsans. For instance, the Gujarati kachori or the fafda must be eaten with jalebis if you have a sweet tooth, or chilli bhajias if you have a hot one. Dal moth chivda must be eaten with the sweet surti ghari and saatha. Khaman dhokla is often eaten with aamras (mango pulp). And dhoklas and dudhpaks are as star-crossed as Montagues and Capulets and ne'er the twain shall meet, though a dhokla may happily date a shrikhand. There are also regional specialities – Jamnagari khasta, sutarfeni and salempak from Khambat, bajra rotlo and tal sankhli from Saurashtra, ghari and ghevar from Surat, Bhavnagari gathia...**

**Trupti**

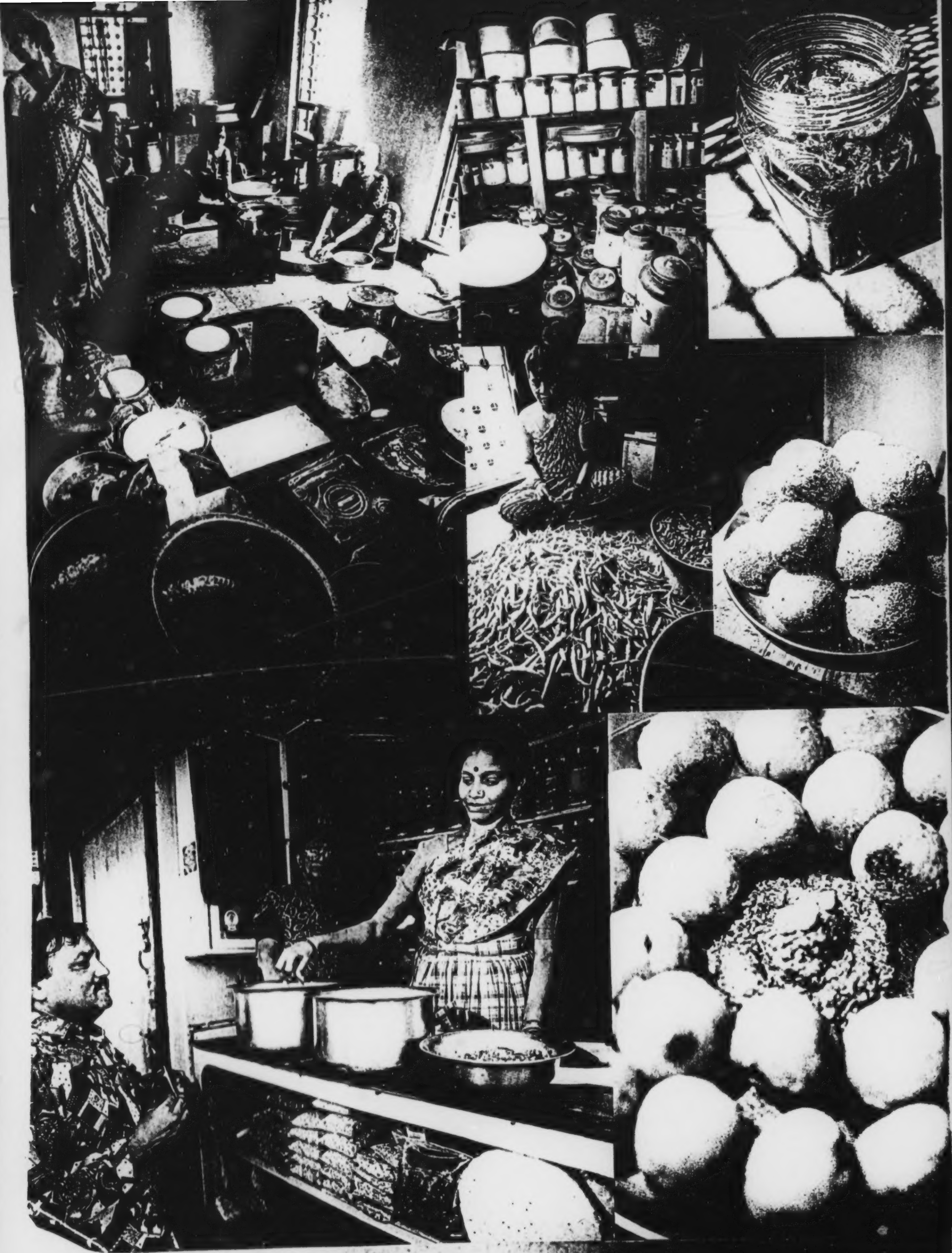
Located in Sikka Nagar on V. P. Road, Trupti is a shop that is a perfect example of how the Gujaratis have adapted to the changing food preferences. Today, it offers both traditional *nasto, farsan* and savouries as well as exotic sweets that are an inspired fusion of Continental and Indian cuisine.

The younger generation has taken over. Says 20-something Ripulbhai, a computer wizkid and dedicated foodie, "My grandfather had a small shop where our present outlet stands. That was over 30 years ago. When he became paralysed, he leased out the shop as he could no longer run it. My father gave up his studies at 16 and took over the shop. My grandmother would wake up as early as 3 a.m. to get fresh milk from the nearby dairy and she would prepare a variety of sweets which my father would decorate and open shop at 7 a.m."

From selling home-made *malai pedhas, barfis, ice halwa, karachi halwa*, Gujarati sweets and some *farsan* items, Trupti gradually and methodically expanded to include a staggering variety of dry *farsan*, snacks, savouries and *mithai*, as well as dry fruits, nuts and even Calcutta *supari*.

But despite its spectacular growth, one thing has never changed: the impeccable quality, purity and standards of hygiene that it takes pride in upholding. Trupti now has two factories, one opposite the shop and another in the vicinity of Bhuleshwar. It has successfully innovated and introduced items such as *paneer dhokla*; hazelnut dip, made from Californian hazelnuts and freshly ground cocoa beans; 'orange plaza', a magical blend of juicy orange segments and rich, dairy cream, cupped in an orange half; it has even added Belgian moulded chocolates to its repertoire!

*CLOCKWISE FROM LEFT: The Matrusamaj Udhyog Graha at Bhuleshwar; sweet and chilli pickles, wheat-flour churma ladoos, savoury kachoris.*



Before you place an order for a party or wedding, the Trupti representative comes over to your house with a basket of freshly made sweets and savouries, so that you can taste the items before ordering them. Trupti also supplies, on order, special low-fat, low calorie Bengali sweets. For those who are diabetic or weight-conscious, Trupti has conjured up the aptly named, 'sugarless' – a unique mix of Omani dates, crisply roasted almonds and pistachios. Its clientele cuts across all income groups; from the middle class to the business tycoons and industrialists, from orthodox families to liberal yuppies abroad.

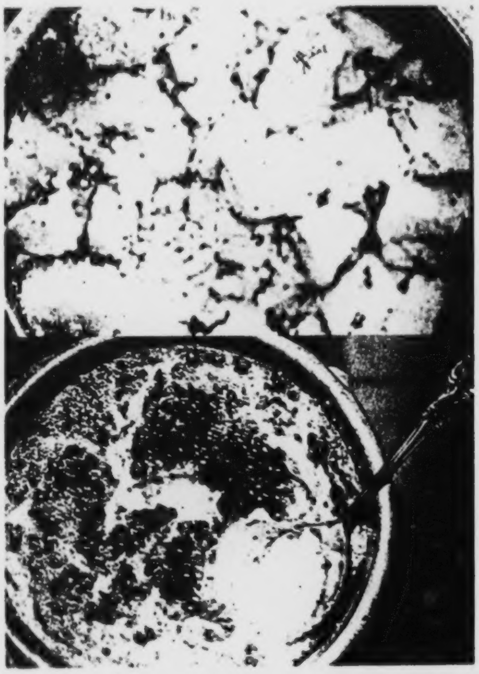
### Payal Griha Udhyog

This is a small but well-knit consortium of three Gujarati *maharajs*, assisted by a team of 22 women. Payal Griha Udhyog has its kitchen and office in the far-flung suburb of Virar (East) but it briskly caters to *farsan* lovers of all communities, all over South Bombay.

Sunil Shah, one of the *maharajs*, came to Bombay from Ahmedabad, as a 16-year-old, to join his cousin who had set up the business. They are known as the *khakra* specialists and apart from supplying all kinds of *khakra* (pure *ghee*, fat-free, *methi khakra*, etc.), dry *farsan* and savouries, they also take orders for home-made *papads* which are obtained from their counterparts in Ahmedabad. Payal Griha Udhyog does not make any sweets or *mithai*, not even against orders. Every Saturday, they phone their regulars and deliver orders on Wednesdays and Sundays. They accept both big and small orders for even as little as 200 gm. Apart from supplying various items to caterers and shops, Payal Griha Udhyog gets huge orders from people going abroad who buy the *farsan* for their relatives and friends. Everything is prepared, packed and labelled with great care. *Farsi puri* is an appetising crunchie made from a dough of flour and *ghee*, flavoured with cummin.

"It is a delicate *puri*," says Sunil Shah, "and breaks easily if rolled into the usual round disc. So we roll it into squares and fold it, before frying. We use only pure groundnut oil, *ghee* or *vanaspati*. If any of our items get spoilt or do not come up to the customer's expectation, we take it back and refund the money. But that has never happened. Our dry *farsan* stays fresh for upto a month if it is stored correctly."

Payal Griha Udhyog concentrates on dry *farsan* and snacks as they are easy to pack and transport by train from Virar to customers in Napean Sea Road, Walkeshwar, Chowpatty and other areas in South Bombay. "Every Wednesday and Sunday," says Shah, "we cover approximately 25 customers. Once a customer has tried and liked our *farsan*, repeat orders come automatically."



*TOP: Steamed dhoklas, freshly prepared. To be eaten with a coriander-chilli chutney. BOTTOM: Handvo, a baked lentil flour preparation.*

### Other Farsan and Mithai Shops in Bombay

Chheda Stores, Ridge Rd., Malabar Hill, Bombay – 6.
Deepak Stores, Walkeshwar Rd., Malabar Hill, Bombay – 6.
Camy Wafer Company, August Kranti Marg, Near Gowalia Tank, Bombay – 36.
Go Go Snacks, Behind Wilson College, Chowpatty, Bombay – 7.
Mishty Bela, Walkeshwar Rd., Bombay – 6.
(Very pricy but lots of variety. Also does eggless cakes and pot kulfi. Famous for their hand-churned ice-cream).
Amrit Bhog, Napean Sea Rd., Bombay – 6.
Malti and Ketna, Tel: 382 8486/382 2186.
Nila Mehta 24-A, Napean Sea Rd., Near Contemporary Arts and Crafts, Tel: 361 7023.
Om Creations Trust, Anand Kendra, King George V. Memorial, Dr. E. Moses Rd., Bombay-11.
Sunila Ahya, Tel: 492 7902.
Priti Shah, Tel: 807 5355.

The *maharajs* who have set up their own units supply both dry farsan and snacks such as *dhokla*, *khandvi* and *samosas* to provision stores and grocers all over the city. In addition, there are those who have their kitchens in the suburbs and deliver daily to different clients in the city. The start out in the morning with a bagful of goodies and return with empty bags, and their clients' orders for the next delivery. ❂

**Food for Thought**
Lynn Tiede
Fulbright 1998 Curriculum Project

# Meeting the Basic Needs

Objective / Aim: For social studies students to list various political and economic problems and successes India is experiencing related to food availability, prices, and quality so that they can write a letter on this topic to their U.S. senator or Representative, United States Ambassador to India or India's United Nations representatives.

Materials :
1. Copies of News paper articles on these topics (included in this lesson plan)
2. Addresses of U.S. Embassy in India, United Nations Mission to India, local U.S. Senator or Congressman

Vocabulary: In this lesson students in each cooperative learning group should be selected to act as a vocabulary person. This person will look up words the group encounters in it's particular articles and research that all group members do not know.
The following words might be made into an additional vocabulary list.
ration, exports, imports, political, economic, government, necessities, cooperative, overpopulation

Motivation:
1. Ask students to write a list of basic necessities they need to survive each day. Discuss their lists after 5 minutes of time to work on their own. Students should have listed air, water, food, shelter, & perhaps love or family.
2. Ask students to write down how these needs are met in their life, who provides them, and how they are provided. Discuss their answers, and guide them to list such things as "my parents work and purchase food and our shelter" "the government makes sure we have water as long as my parents pay taxes and their bills" "Air just exists because we have plants and trees that give out oxygen" "I was born into a family that cares for me and gives me love"
3. Ask students what problems or catastrophes might interfere with receiving these necessities. Discuss their answers and list such factors as losing a job (poverty) not getting an education in order to receive a paying job, getting injured so you can't work or can't breathe or eat properly, war, natural disasters or bad weather, drought, damaged buildings or water pipes due to fire or other accidents, pollution in air or water, robbery, overpopulation, governmental and economic instability or problems (lack of jobs or benefits being offered).
4. Ask students if they have ever been without their basic needs If they have not, ask them to imagine and write what they think it would be like. After a short discussion, explain that class will be studying why and how some Indians have been without two of these basic needs - food & water - and how they have solved some of problems related to those needs. Students will also learn about ways that India has provided other nations with solutions when they have lacked basic needs.

Do Now/ Strategies: 1. Divide class into groups of 4 - 5 students. Give each group one newspaper article and or cartoons and advertisements about food or water not being properly accessible to citizens in India or other nations. Attention should be given to the difficulty of each newspaper article. Students with stronger reading skills should have articles that require this.

2. Give students a chart to fill in information regarding the article. Students should determine what basic need was not available, explain why it was not available, tell how the government of India was dealing with it, other interesting facts, and how they think the government could or should handle the problem. Students should be allowed to work on this research for the remainder of the period.

Possible Topics to Cover, news articles are provided:
1. Dairy Production - The Amul Story
2. Rising cost of Vegetables - India's Hottest Political Issue: The Price of Onions
3. Exports of Rice & Spices - "Rice Traders Plan to Boost Sales & Europe, Russia To Boost Rice Exports, Spice Exports Drop Sharply" and information on India's export crops
4. Closing of Ration Shops Price War: "Ration shops quoting market rates to be shut"
5. U.S. and agricultural sanctions -"U.S. Dilutes curbs as farm lobby turns the Screw"
6. Water pollution and water borne disease problems - advertisements and "Contaminated Water claims lives"
7. Plastics and contamination of food and air; "Should we put plastic in the bag?"
8. Hunger / Food Production & Population Growth - Various statistics and "Plan to fight spectre of starvation deaths in Kalahandi" . "Feeding Scheme to continue in Kalahandi" and information on Green Revolution, population growth, and overcrowded cities.
9. Genetically engineered crops "IIHR developing disease-resistant vegetable crops"
10. "Terminator gene threatens food security in India"
11. High yielding Durum Wheat - "Promising drum wheat for Karnataka" and articles on Agriculture.
12. Need for assistance to farmers - "MP CM, Farmers in thousands court arrest"

Evaluation : Homework for this evening could be the included reading and worksheet on the Green Revolution in India. Permission for reproducing the text should be obtained from Permission's Department , Harcourt Brace and Jovanovich, Publishers, 8th Floor, Orlando, Florida 32887.

# Meeting the Basic Needs

Day 2 - Students should exchange research by presenting the information to their classmates. All students will fill in the rest of the chart as information is given about each article. The teacher should guide and review answers after the lesson.

After the charts are filled in, students should then discuss and complete evaluation part of worksheet and answer the following questions that appear on the worksheet. They can do this individually or in groups depending on the nature or your students. Students should be told to which government official they should write a letter. An equal number of letters should go to each person.:

1. What basic needs do some people in India not always have filled?
2. What are the main reasons these needs are not filled?
3. How are other countries trying to help or how have they helped?
4. Are any other countries causing these people to be without these necessities?
5. How is India helping other countries to fill their basic needs?
6. Write a business letter to your Senator or Congressman, the United States Ambassador to India or to the United Nations Representatives to India. Explain what you have learned about certain basic needs not being met for all people in India. Ask for more information, how the United States is involved with these problems, and how you might help. You might also make suggestions for solving the problems if you have them.

Guidance will need to be given to make sure students write business letter in the appropriate form and that letters are mailed to appropriate parties. Several drafts of the letter may have to be written.

## Meeting Basic Needs: Problems and Successes

Fill in the following information about your newspaper article after reading it:

| Title of Article | Topic of Article | Basic Need affected | Whose need not met | Why need not met |
|---|---|---|---|---|

| How Indian Government Reacted/Responded | Your group's solution | Other Facts you learned about India | Problem for India or Success? |
|---|---|---|---|

After filling in the chart your group should answer the following questions. Your homework will be question #5.

1. What basic needs do some people in India not always have filled?
2. What are the main reasons these needs are not filled?
3. How are other countries trying to help or how have they helped?
4. Are any other countries involved with the lack of these necessities in India? Explain.
5. How is India helping other countries to fill their basic needs? What crops do they export?
5. Write a business letter to the United States Ambassador to India or to the United Nations Representatives to India. Explain what you have learned about certain basic needs not being met for all people in India. Ask for more information, how the United States is involved with these problems, and how you might help. You might also make suggestions for solving the problems if you have them.

Senator Chuck Schumer
U.S. Senate
The Congress Building
Washington, D.C. 20500

Congressman Charles Rangel
Adam Clayton Powell State Office Building Suite 737
163 West 125th Street
New York, NY 10027

India Consulate General
3 East 64th Street
New York, NY 10021

U.S. Ambassador to India
American Embassy
Shantipath, Chanakyapuri
New Delhi 110 001 India

#1 The Aumul Story

## IT BEGAN WITH A STRIKE

A farmer in Kaira district, as elsewhere in India, derived his income, almost entirely, from seasonal crops.

The income from milk was paltry and could not be depended upon. The main buyers were milk traders of Polson Ltd - a privately-owned company - which enjoyed the monopoly for supply of milk from Kaira to the Government's Bombay Milk Scheme.

The farmers of Kaira District were thus at the mercy of the milk traders who could dictate the price as they had nowhere else to turn.

This unfair system bred widespread discontent. The farmers appealed to Sardar Patel, a great leader of India's Freedom Movement, for help. Sardar Patel advised them to market the milk through a co-operative of their own.

He sent his trusted deputy, the late Shri Morarji Desai, to organise the farmers. At a meeting held at Samarkha village on January 4, 1946, it was resolved that milk co-operative societies would be organised in each village of Kaira District to collect milk from the producers and federated into a district union. The Government should be asked to buy milk from the union.

When the Government turned down the demand, Kaira farmers organised a milk strike.

For 15 days not a drop of milk was old to the traders. The Bombay Milk Scheme was badly affected. The Milk Commissioner of Bombay visited Anand, assessed the situation and decided to concede to the farmers' demand.

Thus was born the Kaira District Co-operative Milk Producers' Union Ltd., Anand. It was formally registered on December 14, 1946.

The Kaira District Co-operative Milk Producers' Union Ltd

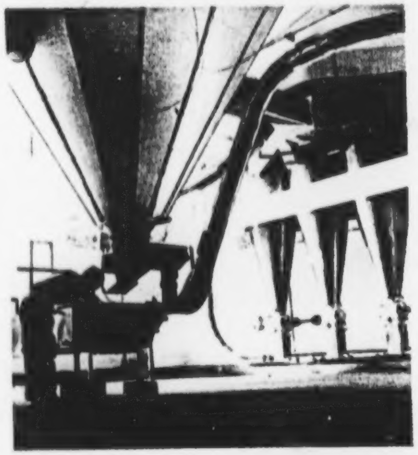
# NEED SHOWS VISION

In the beginning there were just a few farmers supplying about 250 litres of milk a day. Soon the number increased to 400 farmers and the quantity of milk handled rose to 5000 litres a day.

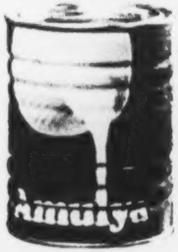
With growth came problems. Milk yield is higher in winter, and the Bombay Milk Scheme could not absorb the extra milk offered. The farmers were forced to sell the surplus milk to traders at very low rates. This led to the decision to set up a plant to process the surplus milk into butter and milk powder.

With financial help from UNICEF, assistance from the Government of New Zealand under the Colombo Plan, and technical assistance provided by FAO, a Rs.5-million factory to manufacture milk powder and butter was planned. The foundation was laid by Dr Rajendra Prasad, the then President of India, on November 15, 1954, and on October 31, 1955, Pandit Jawaharlal Nehru, the then Prime Minister, declared it open.

*Dr Rajendra Prasad laid the foundation stone*



*The powder plant*



# SOCIAL CHANGE

The milk co-operatives in the villages of Kaira are contributing in their own way to various desirous social changes.

Democratic traditions are taking root with yearly elections to the Management Committee. Farmer-members become aware of their rights; they also learn the value of electing the right people.

When milk producers from diverse social and economic groups come together twice every day at the milk collection centre, old barriers based on inequalities begin to break down.

Exposure to various modern technologies have an educational effect. Those who visit artificial insemination centres learn the facts about pregnancy, and family planning messages become easier to grasp. At the cattlefeed plant villagers absorb lessons in nutrition. Similarly the preventive vaccination of cattle have led to greater acceptance of vaccination in children.

Milk co-operatives have created more jobs and incomes in Kaira Villages. The beneficiaries have no pressing need to migrate to towns.

Milk income has added a new confidence and created a better status for women who look after the animals. Independent studies have shown that as high as 48 per cent of the income of the rural households in Kaira District is derived from dairying. And it has made a difference to their standard of living and their social status.

Amul has demonstrated that farmers' societies can employ professionals, make use of modern technology, and harness market forces to serve their ends without disturbing the agro-system. To be a small producer is no disadvantage. Under the social contract of co-operative dairying there is a greater chance of rural development leading to the empowerment of the poor and the lowly.

Amul
CHEESE SPREAD

# A LARGER RESPONSIBILITY

The Kaira District Co-operative Milk Producers' Union was a pioneer. And it was successful. Thus it came to be regarded as a model. With this recognition came larger responsibilities.

When milk producers in other districts of Gujarat started their co-operatives, they turned to Kaira Union for help and guidance. They drew on Anand's experience in project planning and execution.

The Ahmedabad Municipal Dairy (which has been taken over by the Gujarat Dairy Development Corporation), the Gujarat Government's Rajkot Dairy (which is now being managed by the District Co-operative Union) and dairies of the Mehsana District Co-operative Milk Producers' Union Ltd and of the Baroda District Co-operative Milk Producers' Union Ltd. were among the projects executed with Kaira Union's technical help. The Kaira Union also started a training programme for dairy and animal husbandry personnel.

In 1964, the then Prime Minister of India, the late Lal Bahadur Shastri, visited Anand to inaugurate the Union's cattlefeed plant. He desired that co-operatives on the Anand Pattern should be set up throughout the country. The National Dairy Development Board (NDDB) was thus set up in Anand in 1965. NDDB drew up the programme 'Operation Flood' to replicate the Anand Pattern in several milksheds of the country. The implementation of the programme started in 1970-71. Heavy reliance was placed on the expertise of the Kaira Union.

In each area NDDB deployed a spearhead team consisting of specialists who were fully conversant with the Anand Pattern. The liaison between the NDDB spearhead team and the workers of the project area invariably started with a training programme at Anand.

The creation of more 'Anands' was recommended under World Bank projects in Karnataka, Madhya Pradesh and Rajasthan also. In these projects as well, Kaira Union served as a "live laboratory" and NDDB as the 'multiplier'.

The Anand Pattern of co-operative dairying is now being replicated in all the States and Union Territories of India. By March 31, 1995, there were 69875 village dairy co-operatives established in 170 milksheds, with a total membership of 8.9 million farmers.

Similar co-operatives are being established for oilseed cultivators, fruit and vegetable farmers and for small-scale salt makers and tree growers.

# 1 Collecting milk at an Amul Cooperative

#1 The Amul Story

## Dairy Farming in India

India is often described as a land of contrasts. Nowhere in this vast land of 970 million people is this more true than in dairy farming. The pressure of population ensures that the land remains the property of millions of farmers who own plots which are tiny by world standards. There is, in addition, a sizeable population of labourers who work on the land but who do not own any. The size of the population also makes it necessary that the land is used to grow food crops for the growing needs of the people, not merely because their numbers continue to grow but because their economic condition is improving and they can afford better and more food.

This clearly means that very little land can be diverted to the growing of fodder for cattle. Cattle therefore have to make do with the residues left over after food crops have been grown namely, straw, rice polish, bran and de-oiled groundnut (peanut) cake and cereal concentrate. Not for the Indian cow or buffalo those acres of green carpet that is the privilege of cattle in New Zealand, Europe and elsewhere. Each dairy animal therefore typically produces no more than three or four litres of milk a day. But since the cattle is fed only crop residues, the levels of energy efficiencies achieved would be impossible in a developed world dairy setting.

According to *Food Outlook 1997* produced by the Food and Agricultural Organisation of the United Nations, India is the largest producer of milk in the world along with the United States at the end of 1997 with a total production of 70.8 million tonnes. It is expected to overtake the US and go on to produce 74 million tonnes in 1998. How has this been accomplished?

The dairy industry in India suffered from all possible disadvantages, save one, when India became independent in 1947. India, almost alone among non-European cultures, is a milk drinking nation. This, coupled with a large population, ensured a constant and growing demand for milk. But the economic policies then being followed had ensured that the production of milk languished at less than 20 million tonnes and was falling. The best cattle was taken to the cities to meet the demand for milk and when they went dry they were either slaughtered or abandoned. This was responsible for eroding alarmingly the genetic potential of dairy cattle in the country. Farmers in the villages, involved in dairying as an occupation, were compelled to sell milk to middle men at derisory prices because the government had given them the monopoly of purchasing the milk. Producing milk also involved high risk because it could not keep beyond three hours in India's tropical climate. The result was evident in the falling production of milk.

In this worsening scenario the farmers of one district, Kheda in Gujarat, decided to seek the advice and help of one of India's greatest men - Sardar Vallabhbhai Patel who later became Deputy Prime Minister of independent India. He suggested to them that the only way they could save themselves was to form a dairy cooperative and sell the milk directly to the markets instead of through the middlemen route. Forming a cooperative offered its own difficulties. Here was an illiterate farming community being told to form a modern cooperative and market their milk in one of India's most modern and sophisticated cities - Bombay. It also met with opposition from all quarters - from the British Indian government's Milk Commissioner in Bombay to the local privately owned dairy in Kheda, to the middlemen that it employed.

The cooperative struggled against all odds for years - and it survived, and eventually it thrived. By 1965 this cooperative calling itself AMUL (meaning priceless) but also an acronym for Anand Milk Union Limited, had acquired a name for itself as the best run and most modern dairy cooperative in the country. It provided fortified fodder for the cattle of its members and veterinary services on a 24 hour basis. It offered artificial insemination facilities using the best breeds to improve the dairy potential of the farmer's cattle and it bought all the milk that the farmer produced at fair prices all year round. It sold the pasteurised and treated milk in the big cities and it regularly distributed profits to its members over and above the good prices it paid each day twice a day to them.

In 1965 the Prime Minister of India, then on a visit to the district decided that the example of Amul could be replicated all over the country. This resulted in the setting up of the National Dairy Development Board which was given the primary task of replicating the Amul experience, in what came to be called the Anand Pattern of Dairy Cooperatives, all over India.

The plan, called Operation Flood, was to initially build four metropolitan dairies one for each of India's biggest cities and to develop twenty seven cooperative dairying areas - termed milksheds - in ten states. The European Economic Community then played a pivotal role in ensuring that the Anand pattern replication plan went on to succeed. It donated milk powder and butter oil to India. This was reconstituted into liquid milk and sold in the metropolitan markets. The money, generated from the sale of the gift commodities, was then used to set up the four dairies. In the second phase help came from both the EC and the World Bank. This helped set up a national milk grid which ensured that major cities all over the country received their milk supplies by rail and road tankers from places often as far as 2000 kilometres away. The third phase expanded the effort made to embrace the entire country. Today there are 9.7 million farmers who are members of 75,000 village dairy cooperatives societies each of which is affiliated to 170 district level cooperatives which in turn are part of a federal cooperative marketing structure at the level of each state within the country. There are 22 state level federations which offer dairy and other products in competition in the open market among themselves and with the private dairy sector that runs side by side. The industry as a whole today produces enough milk and milk products to ensure that the country imports virtually no dairy products.

While the vast population makes for a per capita consumption of milk which is still rather low the fact that there are none of the severe shortages which were endemic only two decades ago, goes to suggest that the strategy followed by India to make itself self sufficient in dairy and dairy products has paid off handsomely. From a total production of 20 million tonnes in 1970 the production has gone up to more than 70 million tonnes in these last twenty five years or so. This means that even if the price of milk is calculated at just Rs 10,000 ($ 250) per tonne something like Rs 50,000 crores more ($125 billion) is today flowing back into the rural economy each year to directly benefit the poorest of India's farmers than it did in 1970. This clearly makes India's dairy effort one of the best attempts in economic development any where in the world, ever. It must also be remembered that it is one of the largest rural employment schemes in the world generating employment for some 18 million farmers spread over 22 states of the country. And most important of all, it is completely voluntary.

At the centre of the entire effort in dairy farming in India is the farmer, the owner member of his cooperative who takes every day decisions on the running of his society. He is a small farmer, or a labourer who works on someone else's land, and probably owns no more than one or two cows or buffaloes. He typically brings to the cooperative perhaps just about four or five litres of milk each time. The cooperative elects its own Chairman and other officials who are bound to do what their members tell them. It also employs its own staff. This staff pays farmers on the basis of the quantity of the milk they bring in and on its quality tested on the basis of the fat content. The cooperative very often runs its own milk chillers, very important in a tropical country, and elects those who will represent it at the level of the district. At the district level they run their own milk processing plants many of which are huge even by world standards. The district level elected officials then go on to elect a state level managing committee for their federation. The federation in turn coordinates the entire marketing effort. The Gujarat Cooperative Milk Marketing Federation for instance is the largest food business in the whole of India, far larger than any of the multinationals operating in the field. All the state level federations have got together and formed a national federal structure called the National Cooperative Dairy Federation of India.

All this teaches India's farmers an everyday lesson in taking control of their own lives not just economically but politically as well. It teaches them to think and question because each of their actions, they now know, has an effect on their futures. They look forward to education, not just literacy. They now understand the meaning of democracy at an everyday level. In a country beset by age old tradition, religious and caste prejudices the democratic functioning of their cooperatives gives dignity to those who have had none for the whole of India's history spread over thousands of years.

Another aspect ignored, but just as important, has been the role of women. Agriculture involves the growing of one or two or at the most three crops a year. These fetch the farmer money as and when the crop is harvested and sold. But if he has just one or two cows or buffaloes they provide milk throughout the year. This milk once sold goes to keep the home fires burning. Since the number of animals in his home is so few, it is the woman of the house who looks after them. This gives her a level of economic independence she has never before had. In a largely male dominated society this has helped change cultural attitudes set over the centuries. Women now run their own village dairy cooperatives - more often than not, better and more efficiently than men. Most women do not harbour higher political ambitions and are content to run their cooperatives efficiently and well. This has ensured that the dairy cooperative movement now has members who are steady and who will not abandon their farms for the glitter of the cities. Their literacy levels have shot up. Since female literacy and education has proved itself to be the best contraceptive ever devised by man, the fecundity levels of the population have been dropping steadily.

The dairy cooperatives of India have attracted the attention of other less developed countries as well. Sri Lanka, India's neighbour to the south, has gone into collaboration with the National Dairy Development Board of India to set up the Kiriya Milk Industries of Sri Lanka. The intention is to make Sri Lanka independent of milk imports in the next ten years. Kyrghyzstan, a former Soviet republic has had a dairy set up for it by the Dairy Board of India. Other countries which have expressed interest are Thailand, Vietnam, Iran and Pakistan.

As mentioned in the beginning India's dairy industry is a study in contrasts - the world's largest milk producer which gets its milk in driblets of three or four litres from each of its nine million farmers both men and women twice a day and ensures prosperity to them in one of the most successful economic and social development programmes ever devised by man.

(2)

The Times of India • July 5, 1998

# Sky-rocketing prices anger Delhiites

**Staff Reporter**

NEW DELHI: A steep rise in the prices of vegetables, fruits, pulses and vegetable oils in the Capital has put most things out of reach for people belonging to lower and middle income groups.

In the last couple of weeks, prices of seven commonly-used vegetables have more than doubled. And most households have been forced to apply austerity measures to cope with the situation. A disgruntled Delhiite and school teacher Poonam Chaddha said, "It is ironic that while the prices of cars, televisions and washing machines are coming down, the prices of tea, pulses, vegetables and other essential provisions are skyrocketing. "My husband and I work to give good education and nutritious food to our children.

But today, we are finding it difficult to provide them nutritious food. Vegetables have become delicacies in my house," she added.

In local markets, onions are selling for Rs 14-18 a kg, potatoes Rs 14-16, tomatoes Rs 40-46, lemons Rs 60-70, beans Rs 36-42, brinjal Rs 30-35 and capsicum for Rs 35-40 a kg. A researcher in social sciences, Amit Narayan, said, "Most vegetables, even when they are not expensive as they are at the moment, are well beyond the reach of substantial sections of the Indian population.

## SUNDAY SPECIAL

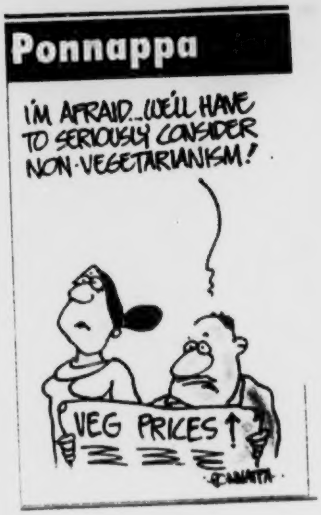
"Let's take the example of onions, which are perhaps the greatest levellers among Indian vegetables — they are used in virtually every kind of cooking.

Today, because of their rising cost, they have lost their real importance of often being the only accompaniment to the *roti* in a poor worker's diet," he added. An angry housewife in Patparganj, Neha Sharma, said, "The BJP government is more busy trying to save itself, rather than applying itself in trying to control such inflation."

"When the government is weak, the country faces an inflationary trend. Today, the prices of tomatoes and onions have gone beyond the reach of the middle-class family. And let me add, I have stopped liking having guests and relatives in my house and I blame the government for this," she said.

Sufferers are not interested in explanations offered — of transportation problems, or the potato crop being affected by diseases and the onion crop by weather.

## Ponnappa


I'M AFRAID... WE'LL HAVE TO SERIOUSLY CONSIDER NON-VEGETARIANISM!
VEG PRICES ↑
PONNAPPA

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INDIA

The Times of India

TUESDAY, JULY 7, 19

1998

# Opposition corners Govt on price rise

**The Times of India News Service**

NEW DELHI: The Union government dodged responding directly to agitated opposition members of the Lok Sabha who wanted to know what steps the Centre was planning to take to check the runaway price situation and offered instead to have a full discussion on escalating prices of essential commodities and vegetables.

Union parliamentary affairs minister Madan Lal Khurana found himself at the receiving end when opposition members, led by the Congress, raised the matter of rising prices during the Zero Hour. They demanded immediate steps to check spiralling prices, a crackdown on hoarders and tightening the public distribution system (PDS). But Mr Khurana refused to say anything beyond the fact that the government was ready for a discussion, to which Bahujan Samaj Party (BSP) MP Arif Mohammed Khan said, "We want the government's response, not its concern."

The Congress took the lead in highlighting the issue when Suryakanta Patil, MP from Maharashtra, raised the matter and held the government responsible for the grim situation in the markets. She said the coalition government, which was "running on 20 wheels" had promised to check the rise in the prices of essential commodities would be checked — instead, not only had the poor been hit but also the middle classes. The prices of potatoes, tomatoes and onions were shooting up every day and even common pulses such as *Arhar* were beyond the reach of the common man. Geeta Mukherjee of the CPI pointed out that the PDS had fallen apart and the government should decide what its priority was — the nuclear tests or checking the price rise.

Ms Patil was supported by MPs from her own party, the CPM, the CPI, the Rashtriya Janata Dal (RJD) and the Samajwadi Party (SP), even as members of the ruling Bharatiya Janata Party (BJP) tried to shout them down. When P M Sayeed, who was in the the chair, asked Mr Khurana to speak, Trinamul Congress MP Mamata Bannerjee demanded that she be permitted to speak. The Congress and other opposition members objected, saying that she was a mer the ruling coalition. Whil gress MP Rajesh Pilot stres Bannerjee was not a membe opposition, his colleag Karunakaran said that as a ber of the ruling coalition, s ample opportunity to disc matter with the ministers.

Finally, despite the object the opposition, Ms Bannerj permitted to speak. She p out that her party was not the government and tha when she was in the Congr mer Prime Ministers Rajiv and PV Narasimha Rao h mitted her to criticise the th ernments. She pointed out t party was not part of the g ment and that even when s in the Congress, former Prin isters Rajiv Gandhi ar Narasimha Rao had permit to criticise the then gover She denmanded that the Minister make a statement a the nation that his governm taking steps; that the Centre a joint plan of action with th and take stern action hoarders.

(2)

# India's Hottest Political Issue: The Price of Onions

## Anger at Rising Cost of Food Threatens to Topple Hindu Nationalist Governments

By CELIA W. DUGGER

NEW DELHI, Oct. 10 — Five months ago, people here triumphantly celebrated in the streets when the Hindu nationalist-led Government conducted nuclear tests. In recent days, thousands of Delhites have again poured into the streets, but this time they are cursing the very same political party.

The issue that angers them and that threatens to topple Hindu nationalist state governments in Delhi and Rajasthan in November elections has nothing to do with nuclear politics and everything to do with the stomachs and tastebuds of voters.

It is the price of the lowly onion — an essential ingredient of the flavor base, or masala, of almost every dish cooked here — which on some days has touched a record 60 rupees a kilo, or about $1.45 for 2.2 pounds, a price that is seven times higher than it was this time last year.

In a desperate effort to appease angry voters, the state and national governments, both headed by the Bharatiya Janata Party, are selling a limited supply of onions in New Delhi from flatbed trucks and Government-run cooperative stores for just ten rupees, or about 25 cents, a kilo.

The national Government also decided on Thursday to import 10,000 tons of onions from the Middle East and to suspend exports temporarily.

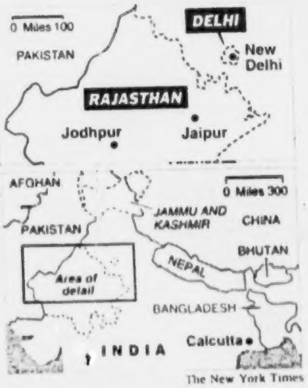
But long lines of shoppers waiting to buy the subsidized onions are still spitting mad. Most of the hundreds of people who mob each truck and store earn only a few dollars a day. Often, they have to wait two, four, even six hours in the onion lines to save $2 on their 2 kilo allotment, about a week's supply for a typical family — and sometimes the onions sell out before they get to the head of the line.

"I'm sweating here just to buy the bloody onions and I didn't even get any," said Gursharn Kaur, a 56-year-old housewife whose husband works in a bottle cap factory, as the truck pulled away. "The Prime Minister has eaten them all."

People are so restive and angry that on Thursday the city began sending police escorts to guard each truck. At one site, policemen waved their lathis — thick bamboo sticks — at the crowd that surged to the front of the line, even as they unloaded

Celia Dugger/The New York Times

An onion shortage is producing long lines, high prices and short tempers in many Indian cities. Customers waited hours to reach the front of the onion line at a federal government cooperative in New Delhi last week.



The New York Times

Hindu nationalists control the Delhi and Rajasthan governments.

the Center for Media Studies, a New Delhi-based organization that does random-sample surveys, show them losing decisively to the Congress Party in both places.

The high price of vegetables, as well as a shortage of drinking water and electricity, weigh more heavily with voters than either the nuclear tests or the Hindu nationalists' brand of cultural politics, the poll takers found.

Earlier in the decade, the Hindu party effectively used the crusade to build a temple to Lord Rama, an incarnation of the Hindu God Vishnu, on the site of a 15th-century mosque as a vote-getting issue, but it has been unable to pursue that agenda now that it is in power because of resistance from its often cranky, demanding coalition partners.

ent, lengthy power outages, water shortages, a rising crime rate and news that mustard oil, a favorite cooking medium, had been widely adulterated with oil from the seeds of a poppy plant, causing more than 60 people here to die of dropsy. And that is not to mention the price of onions.

Over the weekend, wholesale onion prices did come down somewhat, and the weather will also cool off in coming weeks, lessening the pressure on the city's overwhelmed power grid.

"By voting time, we will overcome the people's anger," said Mange Ram Garg, the party's president in New Delhi.

There is a lot of it to overcome. At the Super Bazaar, a federal Government cooperative in New Delhi, hundreds of people, many mothers toting small children

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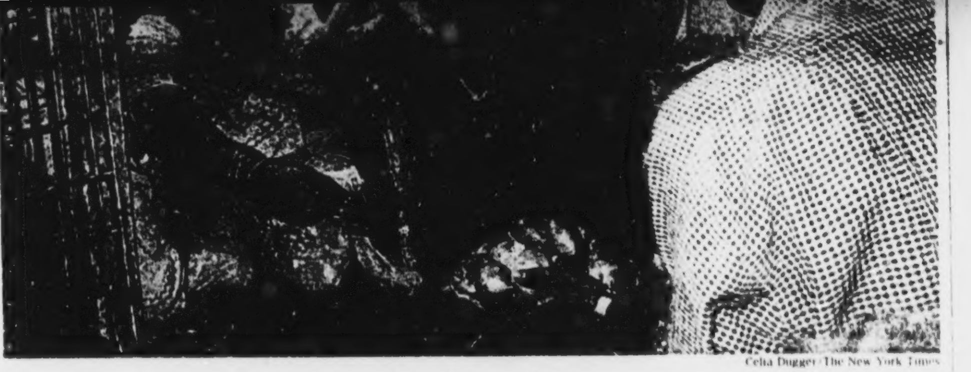
People are so restive and angry that on Thursday the city began sending police escorts to guard each truck. At one site, policemen waved their lathis — thick bamboo sticks — at the crowd that surged to the front of the line, even as they unloaded their own private stores of onions from the truck into a police jeep.

The price of onions, a staple food of all classes, castes and religions, has an almost mystical political significance here. Indira Gandhi, defeated after she suspended democracy from 1975 to 1977, swept back into power in 1980 by turning the price of onions into a populist rallying cry. Waving garlands of onions at political gatherings, she assailed the Government for its failure to control prices.

This year, it is not just the price of onions that is up, but also that of cauliflower, peas, coriander, chilies and other vegetables. An unusually hot summer and late monsoon rains have damaged harvests and contributed to shortages.

The state and national governments here have responded with the heavily subsidized onions, which newspapers are calling a sop to the voters. Many economists consider the move a gimmick that could artificially lower the price of onions, discouraging farmers from planting more of the crop next season.



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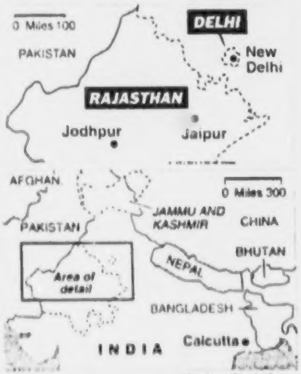

The New York Times

Hindu nationalists control the Delhi and Rajasthan governments.

But the politicians know their audience. Surveys over the years have consistently shown that inflation is the most important issue for voters, a sort of proxy measure of economic well-being in a country where money is the scarcest commodity for most people.

"Onions are a metaphor for the world turned upside down," said Yogendra Yadav, a political scientist at the Center for the Study of Developing Societies, a research institution in New Delhi. "They become a symbol of what is happening to the basic things of life."

The November elections are the first to take place since the Bharatiya Janata Party came to power in March in New Delhi and Indira Gandhi's daughter-in-law, Sonia, became president of the opposition Congress Party.

The Hindu nationalists face tough races in the contested elections in both Delhi and Rajasthan, the states where they hold power — two of the four state elections being held in November. Polls taken last week by the Center for Media Studies, a New Delhi-based organization that does random-sample surveys, show them losing decisively to the Congress Party in both places.

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Earlier in the decade, the Hindu party effectively used the crusade to build a temple to Lord Rama, an incarnation of the Hindu God Vishnu, on the site of a 15th-century mosque as a vote-getting issue, but it has been unable to pursue that agenda now that it is in power because of resistance from its often cranky, demanding coalition partners.

Jagjit Kaur, a government clerk waiting in an onion line last week, said she supported the nuclear tests, but would still vote against the Hindu nationalists this time because of the price of onions. "How do the nuclear blasts affect our day-to-day life?" she said.

At a rally in Jodphur last weekend to launch the Hindu party's state elections in Rajasthan, Prime Minister Atal Behari Vajpayee boasted that the nuclear blasts staged in the state's Pokhran desert had raised the country's international prestige, but as he spoke, The Hindu newspaper reported, there was a rumbling in the audience about the price of onions.

While the November elections are only for state offices, political analysts say that a rejection of candidates from the governing party would be a sign of its declining popularity, even among its core supporters, who are drawn from the ranks of middle class, upper-caste Hindus.

The party's promise that it would bring effective governance has been undermined in New Delhi by persistent, lengthy power outages, water shortages, a rising crime rate and news that mustard oil, a favorite cooking medium, had been widely adulterated with oil from the seeds of a poppy plant, causing more than 60 people here to die of dropsy. And that is not to mention the price of onions.

Over the weekend, wholesale onion prices did come down somewhat, and the weather will also cool off in coming weeks, lessening the pressure on the city's overwhelmed power grid. "By voting time, we will overcome the people's anger," said Mange Ram Garg, the party's president in New Delhi.

There is a lot of it to overcome. At the Super Bazaar, a federal Government cooperative in New Delhi, hundreds of people, many mothers toting small children, waited for hours in the sun on a recent day, sweat pooling on their upper lips and streaming down their faces.

When lunchtime arrived, the Government workers behind the counter pulled down the rattling metal shutter on the shop and took a nearly two-hour-long break while the people outside were unable even to go the bathroom for fear of losing their spots in line.

A group of housewives clustered near the end of the line passed the time one-upping one another with complaints. One said her children constantly whine because their dinners are not as tasty when cooked with less onion. Another said her husband was upset because so much of his earnings is going for vegetables. And all of them said they have cut back drastically on the amount of vegetables they buy.

After more than an hour with no onion sale, the crush of people began banging on the closed metal shutter. When the Government cashier finally raised it at 3:15 P.M., revealing piles of bulging burlap sacks, the maddened crowd roared for onions.

(3)

# Rice-Traders Plan To Boost Sales

NEW DELHI: Rice traders said last week they hoped to sell large quantities of rice to Indonesia after reports the country's actual crop shortfall will outstrip the government's estimate.

The Jakarta Post newspaper has said that Indonesia's rice shortage could be up to 10 million tones this year - more than triple the government's shortfall estimate of 3.1 million tones. Indian exporters said the shortfall could force Indonesia to look for rice from India this year.

"India could export up to 500,000 tones of rice to Indonesia provided they decide to buy our rice," Gurnam Arora, president of the All India Rice Exporters Association (AIREA), told Reuters.

Indonesia has not bought rice from India over the past few years because of quality problems. But earlier this year Indian exporters sent a delegation to Indonesia to sort out differences with Indonesian buyers.

"Indonesia did not have good experience in 1995 but our delegation went there to impress on them the changes we made. We are quite certain that soon Indonesia will lift the ban on Indian rice imports," Arora said.

Tarun Kumar of the New Delhi-based Space Group said: "India should definitely be in a position to corner a large quantity of exports to Indonesia."

"India is in a position to meet these exports in terms of prices, in terms of logistics and more professionalism on part of the exporters," he added.

AIREA Executive Director Anil Adlakha said export demand was good from Bangladesh, Africa and the Middle East. He estimated that exports in 1998/99 could surpass last year's level of 2.1 million tons by about 25 percent.

Trade officials said the Indian rice harvest had ended and the crop was expected to be about 82.5 million tones in 1997/98 up from 81.3 million in 1996/97.

The 1998/99 crop would be even better because of initial reports of good sowing operations after plentiful monsoon rains, they said.

"Until now, things are in a good position. Most of the rice growing areas are in a comfortable position as far as rains are concerned," Arora said.

Traders said domestic rice prices would start easing during September when the new rice crop starts arriving.

Agriculture Minister Som Pal expects record foodgrains output of 203-205 million tones in 1998/99 compared with 195 million tones last year because of good rains.

# Europe, Russia To Boost Rice Exports

NEW DELHI: Buoyant demand from Europe, Russia and Africa is expected to boost India's rice exports in 1 998/99 (April-March), trade officials said last week.

"Demand from Commonwealth of Independent States (CIS), Europe, Africa and Bangladesh is constantly there," said Anil Adlakha, executive director of the All India Rice Exporters' Association (AIREA).

"We are still hoping to sell to Indonesia," Adlakha said. Indonesia has not bought any rice from India, citing quality problems. But Indian exporters this year sent a delegation to Indonesia to sort out differences with buyers there.

Adlakha said global rice trade was expected to rise to about 25 million tonnes in 1998/99 from 19 million last year and India would grab its share of the expanding market.

"We are quite hopeful of getting a share of the increased demand," Adlakha added.

Trade officials said Indian five percent broken non-Basmati rice for export was quoted at $290 per tonne FOB, 10 percent at $280, 15 percent at $265 and 25 percent at $250 per tonne.

Industry officials said sowing had been strong after plentiful monsoon rains and they were confident that the rice crop in 1998/99 would surpass 1997/98 levels of 82.5 million tonnes. "We are quite confident that India this year will cross last year's figures — both for crop and for exports," Adlakha said. "I think we can reach export figures of 2.5 million tonnes this year."

India exported 2.1 million tonnes of rice in 1997/98, trade officials said, adding that prices would start easing in September when the new crop started to arrive.

# Spice Exports Drop Sharply

By PARAKULAM SUNDAR

COONOOR: India's spice exports dropped sharply in the first two months of 1998/99, trade officials said. They said the drop was 33 percent in volume terms and two percent in value.

India exported 36,735 tones of spices worth 2.8 billion rupees ($65.88 million) In April and 54,588 tones worth 2.8 billion rupees in May.

"This shows a fall of 33 percent in volume and two percent in value," P.S. Sreekantan Thampi, Deputy Director of the state-run Spices Board told Reuters.

The Spices Board has targeted 1998/99 exports at 248,050 tones, valued at 17.2 billion rupees.

In the first two months trade achieved 15 percent in volume terms and 16 percent in value.

Thampi said 7,300 tones of pepper exports worth 1.4 billion rupees accounted for 50 percent of the total exports in the first two months of the fiscal year.

Last year India exported 10,823 tones of pepper during the same period.

"A weaker rupee against the dollar and the competition from Indonesia lowered the supply of Indian pepper," the Spices Board said in a report.

Indian pepper prices rose to 190 rupees per kg from 103 rupees in the previous year in the wake of the economic crisis in Indonesia.

"Indonesian pepper will hit the market sharply only in Sept/Oct and until then, Indian pepper is sure to hit high prices," said Bala Krishnan, an exporter.

Unlike pepper which dropped in volume but rose in price exports of cardamom, mint oil and oleoresin increased in both value and volume, industry sources said. Meanwhile exports of chilli, garlic, turmeric, coriander, cumin, celery, fennel and curry powder dropped.

"Weak demand has been instrumental for the decline of the export of these spices but we deem it a temporary phenomenon as there is no specific reason," Krishnan added.

# PRICE WAR

## Ration shops quoting market rates to be shut

Mid-Day July 15, 1998

**By A Staff Reporter**

RATION price shops in Mumbai selling essential items at market rates will be closed down temporarily, according to Food and Civil Supplies Minister Haribhau Bagde.

Bagde said yesterday that an order passed in June has banned these shops from selling essential items in the open market. "Often we have found that foodgrains obtained from government ration outlets are sold at market rates in these outlets. This ban aims at curing such a malpractice," he said.

A delegation led by Janata Dal leader, Mrinal Gore and Communist Party of India leader, Ahilya Rangnekar, met Bagde yesterday, protesting against the rise in prices of vegetables and other food items. Bagde countered their complaint by referring to the market forces of demand and supply that decide the price. In such a scenario, he added, the government can't do anything.

On the issue of essential items not being available on the Public Distribution System, Bagde said that in Mumbai only 35 per cent of the population buys items from the ration shops. "In 1994-95, the wheat supplied to the ration shops was 5.19 lakh metric tonnes, today it is 8.99 lakh metric tonnes, while the number of consumers is more or less the same. Similarly, the distribution of rice has gone up from 3.44 lakh metric tonnes to 5.62 lakh metric tonnes. Shop-keepers have not only taken advantage of the situation but are claiming that the government is not supplying the assigned quantity," he said.

"Generally, vegetables that are planted in May are available in the market during June and July. Owing to conditions that were not favourable for planting, a shortage has occurred. Once the new crop is ready for the market, the rates will automatically come down," he said.

(5)

# US dilutes curbs as farm lobby turns the screw

## Senate votes unanimously to lift agricultural sanctions imposed against India,Pakistan

The Hindustan Times July 1998

**From N. C. Menon**

**WASHINGTON, July 10**

**The US Senate yesterday voted 98 to 0 to exempt agriculture exports and credits from the sanctions imposed on India and Pakistan after their nuclear tests in May. The waiver includes both food products and fertilisers.**

The rush to dilute the sanctions came not out of any feeling of 'forgiveness' for the nuclear 'transgressions' on the subcontinent, but due to pressure from the American farm lobby, which had been screaming about lost grain sales and agricultural jobs.

Senator Trent Lott of Mississippi, majority leader, rammed through the bipartisan "farm export relief bill," on short notice, bypassing the committee that usually reviewed such legislation. There was good reason for haste: Pakistan had set a deadline of July 15 to enter the market to purchase 350,000 metric tons of wheat. If the sanctions law had not been amended by then, American wheat farmers would not have been able to bid for the sale.

The sanctions had frozen $ 88 million in wheat credits for Pakistan this year and put in jeopardy up to $ 350 million in new credits for next year. Pakistan bought 2.2 million metric tons of US wheat last year. A total of 37 per cent of the wheat grown in the Pacific northwest went to Pakistan. Washington state alone received $ 500 million last year in wheat payments from Pakistan.

India is in a much more comfortable position with regard to foodgrains. It only imported $ 142 million worth of US farm products last year.

To no one's surprise, House members — who are in recess this week — have promised to bring the bill to a final vote early next week. Shortly after the Senate passed the Bill, President Clinton issued a strong statement of endorsement. "Food should not be used as a weapon, and I will resist any action that would lead to a de facto grain embargo," Clinton said in the statement.

Notwithstanding such rousing Presidential rhetoric, it was crystal clear that the sanctions had been diluted not out of concern for hungry souls in South Asia. After all, India and Pakistan could have bought foodgrains from other suppliers who were already lining up and licking their chops in expectation of moving in on the US.

The sanctions were diluted for the express purpose of rescuing American farmers who were already suffering the effects of a wheat glut and the resultant low prices. The Senators — and members of the House next week — cannot forget the November elections in which they can ill afford to displease the sizeable farm constituency.

In their desperation to get the Bill passed, Senators admitted as much. "The sanctions are supposed to squeeze the targeted country, not the American producer, declaimed Senator Mitch McConnell, Kentucky Republican. "We should not sacrifice our farmers in an effort to put the nuclear genie back in the bottle."

Senator Patty Murray, Washington State Democrat, pleaded in the Senate that "Washington state wheat growers need this Bill." Senator Ron Wyden, Oregon Democrat, was in greater distress: "We in the Pacific northwest are six days away from disaster, he said.

The Bill almost came unstuck earlier in the day when Senator John Glenn, Ohio Democrat and former astronaut, who wrote the original sanctions legislation (the Glenn amendment), shied away from a first draft that sought to give Clinton the authority to exempt other sectors besides agriculture. Senator Joseph R. Biden, Delaware Democrat, who was the main sponsor of more flexibility for the President, argued that it would enable Clinton to offer inducements to India and Pakistan to sign the treaties aimed at curbing proliferation.

But Glenn would have none of it. In an interview after the voting, Glenn commented: "It would have dumped out everything on sanctions, and given the President complete carte blanche without Congress being involved at all."

In a sense, today's vote leaves precious little by way of punitive sanctions.

The Times of India August 6, 1998

# Contaminated water claims 7 lives

**By A Staff Reporter**

NEW DELHI: With the death of three-year-old Deepa on Wednesday, the toll from alleged supply of contaminated water to the Bharat Vihar jhuggi cluster, near Kakrola village in west Delhi, rose to seven.

All the victims were children, between nine months and six years of age. The deaths occurred over the past 10 days. Area residents alleged the children fell sick after drinking water supplied by private tankers to the area.

The tankers, it was learnt, were under a contract with the Delhi Development Authority, which had the onus of providing civic facilities to the jhuggi cluster — it is on DDA land.

Residents of the colony, who were shifted by DDA from a slum at C-2B Block of Janakpuri nearly one month back, alleged the water supplied by DDA was dirty, with insects detected in it on several occasions. DDA officials said they had test reports to prove it wasn't.

Indignant residents alleged a dead snake was found in the water tanker which had come to supply water on Monday afternoon, a charge that was denied as "baseless" by DDA officials.

Though none of the residents claimed to have seen the snake, a resident of a neighbouring unauthorised colony, Divakar, said he had seen a two-foot-long snake stuck in the outlet of the tanker (DEL 4905).

Pointing to the possible causes for the seven deaths, DDA vice-chairman P K Ghosh said, "People in jhuggi-jhonpris are highly vulnerable since they live in unhealthy conditions.

It is quite possible these children contracted germs through sources other than the water that was supplied — due to dehydration or some other reason," he said.

He denied allegations the water going to Kakrola village in tankers was contaminated.

He also said it was not confirmed at this stage whether the deaths had occurred due to contaminated water. "The tankers were taking treated water from Vasant Kunj," he said.

This was the finding of a preliminary report reportedly submitted to Mr Ghosh on Wednesday. However, Mr Ghosh said he was conducting a detailed inquiry and would visit Kakrola on Thursday.

Mr Ghosh said in the jhuggi cluster where DDA was supplying water through a contractor, there had been four deaths. The other three, he said, had occurred in other areas.

Meanwhile, the Delhi government refused to have anything to do with the tragedy on the ground it was the responsibility of DDA — a Union government agency — to provide drinking water. Delhi chief minister Sahib Singh, also the chairman of the Delhi Jal Board, said in a press conference on Wedneesday the board sent its tankers, for the first time, only on Tuesday.

S K Chadha

**A frail two-year-old Vinayak who has been suffering from diarrhoea and vomiting, at his Kakrola village jhuggi in west Delhi on Thursday**

Municipal commissioner V K Duggal, who visited the site on Wednesday morning, said in a statement the jhuggi cluster housed about 4,000 dwellers — following the deaths, a mobile dispensary has been stationed at the site.

Mr Duggal also said the cause of deaths was not established but the victims had suffered from vomiting and diarrhoea before their end.

He said an inquiry was being conducted by the MCD to ascertain whether the deaths were caused by water from the tankers.

In the area, some are still sick. Frail two-year-old Vinayak, in jhuggi C-313, is battling for life. He, too, according to his mother Sushila, is suffering from diarrhoea. His elder sister, three-year- old Laxmi, died in similar circumstances on July 27.

By Wednesday afternoon, the news of the detection of a snake in a water tanker, and the deaths resulting from dirty water, had spread. And, almost all colony residents complained of getting dirty water from tankers. They also complained of lack of toilets and potholed lanes.

Krishna, resident of C-252 jhuggi, pointed to a pond of dirty water barely three feet from her jhuggi, and said, "If not from dirty drinking water, we would surely die of malaria."

At jhuggi C-225, mourners had started gathering as Deepa's body lay covered with a piece of cloth. They were waiting for her father, who was away at work in a school in Subhash Nagar, and was apparently unaware of the tragedy.

Her mother Kanya was inconsolable. The mother of five said in a choked voice, "Deepa had been suffering from fever and diarrhoea on Tuesday night."

The list of victims: Parvesh, 4, Rahul, 3, Neha, 2, Sushila, 1, Pandishpari, 9 months, Radha, 6, and Deepa, 3.

## *Steps to prevent water-borne diseases*

**By A Staff Reporter**

NEW DELHI: Water-borne diseases can be kept at bay if the following precautions are followed:

- Clean overhead tanks in which drinking water may be stored.
- Boil water before consumption and keep it covered.
- Get old or corroded water pipes repaired to prevent contamination.
- If getting drinking water from Delhi Jal Board tankers, make sure the hose pipe or the bucket in which the water is carried, is clean.
- Wash hands before meals and do not eat cut fruits or food articles lying in the open.
- Add chlorine tablets to drinking water.
- Do not drink water from shallow handpumps which have been painted red by the civic authorities.

# JOIN HANDS WITH N.S.S. VOLUNTEERS

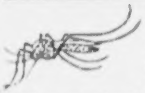
## Eliminate mosquito breeding - keep Dengue at bay

### ABC OF DENGUE

### WHAT IS DENGUE ?

Dengue is a viral fever transmitted by bite of a female *Aedes* Mosquito infected with dengue virus. The signs and symptoms of the disease vary from very mild, moderate to severe forms leading to high fever, haemorrhage and shock.

### WHAT IS *AEDES* MOSQUITO ?

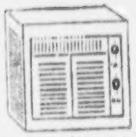


Aedes mosquito has small, black & white stripes on its legs and back. Its average size is about 5 mm. The female mosquitoes lay their eggs in artificial containers having clean water in and around houses. In 8 to 10 days, the eggs hatch into adult mosquitoes.

### WHAT ARE HABITS OF *AEDES* MOSQUITO ?

The adult mosquitoes rest in closets and other dark and cool places of houses. *Aedes* mosquito bites during day time in the early hours of the morning and late hours of afternoon.

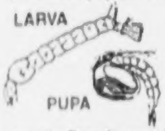
### WHAT ARE THE USUAL BREEDING PLACES OF *AEDES* MOSQUITOES ?



Room coolers, water storage tanks, metal drums used for water storage, fire buckets, old tyre dumps, earthern pots, coconut shells, discarded bottles and containers, money plants and other ornamental plants grown in bottles and vases containing clean water, and any other artificial container which can accumulate water upto 7 days.

### HOW TO IDENTIFY *AEDES* MOSQUITO BREEDING ?

Larva and pupa of *Aedes* mosquito are freely swimming tiny creatures in water. Larva suspends from water surface with head downwards. On disturbance, larva and pupa swim downward rapidly. Breeding can be best seen in torchlight.



### CAN YOU PREVENT DENGUE ?

**Yes**, by taking the following actions to eliminate mosquito breeding places.

- Check all water collections in and around your house every sunday to ensure elimination of mosquito breeding.
- Clean your cooler once a week and mop it dry before refilling.
- Drain out completely, scrub, clean and refill all water containers daily. If water is scarce and cannot be wasted, filter the water daily through a piece of coarse cloth.
- Cover all the water storage containers and over-head tanks.
- Remove all unwanted water containers and articles e.g. broken cups, unused bottles, tyres etc. that can hold rain water.
- Keep the portable water-containers upside down while not in use.
- Put kerosene oil/petrol/diesel in the stagnated water collections not fit for drinking.
- Avoid mosquito bite by use of mosquito repellants, mosquito nets and screening of doors/windows of the house.
- Patient suffering from Dengue Fever/ Dengue Haemorrhagic Fever should be kept under mosquito-net.

### WHAT ROLE IS EXPECTED OF MEDICAL PRACTITIONERS ?

- Patients with sudden high fever, haemorrhagic menifestations Thrombocytopenia (1 lac per cu mm. or less) and Haemoconcentration (20% or more increase in haematocrit must be reported to Municipal Health Officer immediately as suspected dengue case. Preventive action is initiated by the MCD in neighbouring locality on report of a suspected case without waiting for its confirmation.
- Blood samples of suspected dengue patients should be sent for serological confirmation of diagnosis. **A Dengue case is one that is serologically confirmed.**
- Dengue Fever/Dengue Haemorrhagic Fever has been declared as dangerous disease under the DMC Act and its notification to Municipal Health Officer is mandatory.

BY EARLY DIAGNOSIS AND PROMPT TREATMENT, DEATH DUE TO DENGUE FEVER AND DENGUE HAEMORRHAGIC FEVER/ DENGUE SHOCKSYNDROME CAN BE PREVENTED

**Mayor of Delhi**

*Delhi had an unfortunate experience of outbreak of Dengue Haemorrhagic Fever during 1996. Last year, largely due to active community participation in dengue prevention measures, Municipal Corporation of Delhi could effectively control this dangerous disease.*

- *As the **Aedes mosquito** breeds inside houses, complete prevention of the disease is not possible without **wholehearted** co-operation of all citizens of Delhi. It takes less than half an hour to check all water collections in and around houses e.g. water coolers, water storage tanks , **haudis**, old tyres, discarded bottles and any other container capable of accomodating water upto seven days to ensure elimination of **Aedes** mosquito breeding. I am sure that citizens of Delhi would not mind sparing this little time once in a week for something that affects ours, our children's and our neighbours' lives. This is particularly necessary during monsoon and post-monsoon seasons when conditions are favourable for transmission of the disease.*
- *We should also not neglect our work place where mosquitogenic conditions not only affect those working there but also endanger innocent families in neighbouring residential areas. I appeal to Heads of all govt./semi-govt/autonomous/private organisations/professional bodies,trade and market associations to also take dengue preventive measures regularly.*
- *Under the Delhi Municipal Corporation Act, all medical practitioners are required to notify Dengue cases to Municipal Health Officer so that preventive action in the affected household and the neighbouring areas can be taken to check spread of the disease. Whenever the signs/symptoms mentioned here, suggestive of a Dengue Haemorrhagic Fever case, are detected by a Medical Practitioner, the case should be informed to Municipal Health Officer and blood sample of the patient must be sent for serological confirmation.*
- *The citizen should not hesitate to contact a Medical Practitioner in any fever case as **Early Detection and Prompt Treatment (EDPT)** can save life of a dengue patient in almost 99% of cases.*
- *Municipal Corporation of Delhi is also involving 30,000 NSS volunteers to remind citizens to check and eliminate mosquito-breeding sites in their houses. They will also provide door-to-door health education on preventive measures against water-borne diseases e.g. Cholera, Gastro-enteritis etc. These volunteers will be carrying an Identity Card of MCD. I appeal to all citizens of Delhi to co-operate with them.*

*I am sure , like last year , this year too Delhi citizens will lend their helping hand to MCD in keeping Delhi epidemic free.*

*(Yog Dhyan Ahuja)*

**HAMARI DILLI - SWASTH DILLI**

HEALTH DEPARTMENT
**MUNICIPAL CORPORATION OF DELHI**

Issued by the Press & Information office MCD

The Times of India July 31, 1998

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# CHOLERA IS PREVENTABLE

## Four Golden Rules to Prevent Cholera & Other Diarrhoeal Diseases

### SAFE DRINKING WATER

- Drink Jal Board Water.
- Before drinking water from other sources -

a) boil or
b) add crushed chlorine tablets

### ENVIRONMENTAL SANITATION

- Keep your surroundings clean.
- Throw garbage in dalaos.
- Stop open defecation. Use Sulabh Sauchalya or mobile latrines.

### PERSONAL HYGIENE

- Wash your hands with soap and water after defecation and before taking meals.
- Cut your nails regularly.

### FOOD HYGIENE

- Don't eat stale food.
- Don't eat food articles exposed to dust & flies.
- Keep food items and cut-fruits covered.

**IN CASE OF DIARRHOEA AND VOMITING**

- Take plenty of oral fluids e.g. Lassi, Rice-water & Oral Rehydration Solution (ORS).
- Consult doctor immediately.

Chlorine tablets & ORS are available free at MCD dispensaries/health centres.

***BY EARLY REPORTING & PROMPT TREATMENT CHOLERA CAN BE EASILY CURED.***

**HAMARI DILLI - SWASTH DILLI**

HEALTH DEPARTMENT
**MUNICIPAL CORPORATION OF DELHI**

The Times of India July 1998

THE SUNDAY TIMES
OF INDIA

12 THE SUNDAY TIMES OF INDIA, AHMEDABAD, JULY 19, 1998

# Should we put plastic in the bag?

## IN BLACK AND WHITE

*Unsafe plastics can do immense damage to our bodies and the environment. It's time the industry showed more responsibility and started phasing out PVC*

**Bittu Sahgal**

Mumbai's Municipal Commissioner is at his wits' end. Plastic waste is clogging the city's gutters, sewers and storm drains. The corporation is consequently considering banning the sale of disposable polythene bags... an enlightened step that has already been taken by the armed forces for the cantonment area in Colaba where people vociferously say "No!" to plastics.

That plastic lunch box? Is it made of coloured, recycled polypropylene? If so, you could be biting off more than you bargained for... toxic dyes, for instance! Even that brightly coloured high-impact polystyrene ruler will eventually find its way into some mouth or other.

But the real villain of the plastics world is undoubtedly polyvinyl chloride (PVC), the material used for files and folders and raincoats and virtually anything these days.

PVC simply cannot be disposed of safely. And it just cannot be recycled beyond a point. When ragpickers burn PVC-coated copper wire, for instance, the copper acts as a catalyst to produce some of the world's most lethal substances, including dioxins. Dioxins cause endocrine disruption which results in a whole range of human diseases, including impairment of the immune system, genetic defects, deformed reproductive organs, lowered sperm counts and cancer. These facts are known to the plastics industry.

Because PVC has invaded virtually every aspect of our lives (flooring, wallpaper, curtains, tablecloths, electric wiring, furniture, pipes, shoes, car upholstery and, of course, children's toys) none of us can escape its toxic effects for long.

Hospital and municipal waste incinerators have been linked to falling sperm counts in Europe and America because they burned chlorinated compounds such as PVC. Yet the World Bank is currently financing both incinerator exports and (indirectly) the manufacture of PVC in India. Even without burning, the slow release of PVC additives such as lead (a neurotoxin that causes brain damage) and cadmium (a kidney toxin that also causes lung cancer) can take a terrible toll of your health.

If the Indian plastics industry were even minimally responsible it would seek to phase out PVC. Instead it seeks 300 per cent capacity expansions... and imports millions of kilograms of hazardous PVC waste from countries such as the USA and Germany.

With chlorine comprising around half of what goes into making PVC, the plastics industry too could be faced with massive public interest litigation in the foreseeable future when victims suffering from cancer and brain damage identify the cause of their suffering.

For now, however, let the buyer beware! Is that teething ring you gave your child made out of PVC? If so, watch out for plasticisers that contain phthalates and stabilisers laced with heavy metals. Such additives are not chemically bound to the PVC... so your child could easily ingest them. No product that might ever be handled by children should be made out of plastic.

So? Should all plastics be banned? No, only the truly unsafe ones. But all manufacturers should be made to label the chemical composition and health risks of their products. We should also force the industry to institute a waste collection (buy-back/ recycle/ reuse) system. And PVC manufacturing capacities must immediately be frozen as a first step towards banning PVC, though I would not hold my breath while waiting for the Ministry of Environment to act.

A better bet would be for consumer groups to institute a nationwide boycott of all unsafe plastics and a total ban on PVC. In the absence of self-regulation, particularly in India, where corruption rules the roost and foxes are appointed to look after chickens, we probably have no choice but to shackle our irresponsible plastic industry with long overdue legislation, punitive taxation and consumer boycott.

*(**Bittu Sahgal** is the editor of 'Sanctuary' magazine)*

*Plastic carry bags are economical and hygienic. Contrary to the scaremongering, PVC is stable; the people who litter it are the real problem*

**Vijay Merchant**

It is undeniable that litter, whether it is plastics, paper, metal or cloth, is an eyesore. It is also an environmental nuisance. However, in all fairness, one cannot label the Indian plastics industry as an irresponsible one because people are carelessly discarding packaging waste on the roads, parks and sea shore.

The plastics industry does not litter. While it can definitely assist the local body in organising, sorting and recycling waste, it must be pointed out that plastic factories recycle their waste. India ranks first in the world for recycling plastic waste. In fact, we are 300 to 400 per cent ahead of the developed nations in recycling post-consumer waste.

A reason for this is that recycling is a profitable activity. Over one lakh rag-pickers earn their livelihood by being part our plastic recycling system. Over 2,000 units sort out this waste and recycle it. This, in fact, shows that the plastics industry does know its responsibility.

The real challenge is changing the "littering habit". Indians living abroad do not throw plastic bags out of their cars or homes. They use the waste bins to avoid being fined by the local authorities.

Rather than pointing a finger at the plastic industry — which protects food from contamination and products from damage — those genuinely concerned about the environment should work with the industry in curbing the littering habit. A Centre for Plastics in Environment is in the process of being set up, and workshops are being planned by Plastindia, in coordination with municipal corporations and recyclers, to tackle the waste problem.

While a move is underfoot to ban plastic carry bags, the fact is that these bags are economical and are a hygienic way of carrying groceries and other items. By banning their use, the administration will only impose a heavier cost and environmental burden on the masses. Paper or cloth bags will be environmentally more taxing and cannot match the performance of poly bags. Regarding the 'hazards' of plastic toys, European countries have scientific evidence to indicate that these fears are unfounded. In fact, plastic toys are safer than metallic ones (which can cut the baby's skin) or wooden ones (which contains toxic paints and varnish that can harm the child).

Coming to PVC, it is very stable, and of all the chlorine compounds, it is the least environmentally dispersed. Almost 60 per cent of all industry in the world is based on chlorine and almost 50 per cent of the industries are direct consumers of chlorine and it co-products. PVC is everywhere precisely because of its safety and good environmental and economic performance.

Those who talk about dioxin emissions during the manufacture of PVC should also know that it is a closed manufacturing process worldwide. The major cause for dioxin emission is incineration, motor vehicle emission and waste treatment facilities. To zero in on PVC as the main culprit for dioxin creation is contrary to scientific data on record. The environmental impact of replacing PVC with a substitute material (say, cast iron in the case of pipes) would mean a substantial increase in air pollution and health hazards.

The fact is no other plastic today has the combination of properties PVC offers and this is why hospitals choose PVC for blood bags, floor covering, medical tubings and gloves. If PVC was harmful, there would not have been an increased consumption of 5 per cent in the western world in this decade. Government and developed nations would have halted the PVC industry's expansion if it as harmful.

Finally, while concern for the environment is good, any decision or action should be governed by facts and scientific data. Panic reactions to half-truths will only slow down progress by bringing in place costlier alternatives.

*(**Vijay Merchant** is the chairman of Enviroplast-Plastindia, which promotes use of plastics)*

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The Indian Express 7/9/98

# Feeding scheme to continue in Kalahandi

**NIRMALA GEORGE**
NEW DELHI, JULY 8

WITH no tangible change in sight to the endemic problems gripping Kalahandi, Bolangir and Koraput (KBK) districts, Prime Minister Atal Behari Vajpayee has ordered that the emergency feeding programme continue uninterrupted to prevent any starvation deaths.

More significantly, Vajpayee has called for an overall strategy for the development of the region and has directed the Planning Commission to take the responsibility of overseeing the implementation of the long-term development schemes for the KBK districts.

In the last three months, Jaswant Singh, Deputy Chairman of the Planning Commission, has held a series of meetings with Orissa State Government officials on a revised Long-term Action Plan (LTAP) spanning from 1998-99 to 2006-2007, to strike at the root of the areas ills: deforestation, soil degradation and drought.

While successive governments have grappled with many long-term and short-term strategies, plans and schemes, what keeps the impoverished people of the KBK area alive is the emergency feeding programme sanctioned by the Prime Minister's Relief Fund.

This is not the first long-term plan that the KBK has seen. During the days of P V Narasimha Rao, the Central Government had with much fanfare launched a comprehensive strategy for the undivided Kalahandi, Bolangir and Koraput areas, subsequently divided into eight smaller districts.

But the plan failed to take-off. According to officials both the expenditure incurred and the performance have been much less than the targets.

"The chief cause for its failure was the lack of political will. The resources had been approved, the plans drawn up, but the Congress Government in the state did not show the will to carry it through", said Kalahandi MP, B K Deo of the BJP.

Quite apart from the gravity of the situation in the KBK region, the change in the BJP's fortunes in the state in the 1998 elections and its alliance with the Biju Janata Dal is also providing an impetus to the Centre to make a difference.

"We want to make a difference to the scenario of despair. The people of the area have voted for the BJP and have a lot of expectations from the BJP", said Deo.

A Central team, including officials from the Prime Minister's Office and the Ministry of Water Resources, which visited the area has given its inputs to speed up both ongoing and proposed irrigation projects as well as soil, water and conservation schemes.

The revised LTAP will have an outlay of around Rs 6060 crore, covering eleven broad sectors including agriculture, watershed development, afforestation, irrigation health and drinking water among other priority targets.

Another Rs 88.50 crore have been proposed for the Emergency Feeding Programme which forms the lifeline for about 75,000 indigent persons, mostly the old and infirm, since those who are younger or are in a position to find employment tend to migrate away from the chronically-drought prone area.

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# Plan to fight spectre of starvation deaths in Kalahandi

**The Times of India News Service**

NEW DELHI: The Centre has allocated additional funds to implement a plan to fight the spectre of starvation deaths in the drought-prone tribal belt of Kalahandi, Koraput and Bolangir in western Orissa.

A high-power Central team deputed by Prime Minister Atal Behari Vajpayee for an on-the-spot study of the famine conditions has recommended that emergency feeding centres be run to prevent starvations.

The three chronically drought-prone districts have already been divided into eight segments for the purpose of more effective administration. The earlier study reports called for a long-term action plan for the regeneration of forests and restoration of environment degraded over a long period of time.

What has apparently caused concern in government circles is the disturbing recurrence of starvation deaths and the continuing migration of population from these areas to other places in the fiftieth year of Independence.

The Orissa government too petitioned the Centre for more fund and implementing a long-term plan for bringing this area out of the lengthening shadows of deaths and suffering.

The Prime Minister has already written to the Planning Commission deputy chairman Jaswan Singh suggesting that different a pects of a comprehensive actic plan be studied to address tl problem of the area.

The Times of India July 1998.

(8) From: Wallbank, T.W. Schrier, A, Weaver, D, and Gutierrez, P. History and Life Oakland. Scott, Foresman + Co., 1980.

regions were mainly agricultural. Jute, a strong fiber used to make rope, was a major cash export. Crops in Pakistan were so plentiful that a surplus of grain and other foods was produced. India, on the other hand, had the factories needed to process raw materials, such as jute. But it did not grow enough food. In addition, the political boundaries between the two countries cut across important canals and rivers.

Many Muslims moved to Pakistan, but some 40 million remained in India. Many Hindus also stayed in Pakistan. Fanatics on both sides began riots and committed horrible atrocities. In 1947, thousands of persons were massacred in Hindu-Muslim riots. When Gandhi, by 1948 a frail old man in his late seventies, tried to stop the terrible riots, he was killed by a religious fanatic.

Kashmir, a state along the extreme northern boundary of India, had been expected to join Pakistan, because most of its people were Muslim. But the Hindu ruler wanted to become part of India. As a result, fighting broke out between India and Pakistan. The United Nations intervened in 1949 and again in 1965, but the dispute continued.

**India chose a democratic form of government.** Of the two new states, India was the larger, with an area a third the size of the United States. The people of India were mostly poor, undernourished, and illiterate. Food shortages, even famine, were constant threats. And the population was growing at the rate of about 10 million per year.

The government introduced measures for family planning to slow down population growth. It also pushed a program of land reform to increase food production and industrialization

to diversify the economy and provide more jobs.

India originally chose to solve its problems under a democratic government. Through the leadership of the first prime minister, Jawaharlal Nehru [nā′rü], democratic institutions were modeled on those of England and America. The government practiced state planning through five-year plans such as the communist countries used. But it also allowed free enterprise and a multiparty system. The goal of the Indian government was a welfare state by means of gradual economic development.

Nehru died in 1964. During his term of office, important gains were made in food production and industrialization. But the living standard of most people remained practically unchanged because of the continuing increase in population.

In 1966, the ruling Congress party chose Indira Gandhi, Nehru's daughter, as prime minister. With the slogan of "Banish Poverty," she won the national election in 1967. Her government followed a policy of better distribution of wealth by moderate socialism. However, her programs were not very successful, and opposition to her government grew. Many of her political opponents were arrested. She began strict censorship and allowed no criticism of her policies. In 1977, she was voted out of office but she was returned to office in 1980.

By the mid-1970s, some economic progress had been made. But India was still largely a poor, rural country. In the countryside, most people lived in mud huts and made poor livings as tenant farmers. Large numbers of those who had no land and no skills moved to the cities. There they often found life to be much worse.

In India, the government set up programs to help solve problems of lack of food, water, jobs, and education. *Left:* Hundreds of men, women, and children carry earth to build a mile-long embankment. The embankment will hold water for irrigating the district, which is often stricken by drought. The project provided wages for the hard-hit people of the area. *Right:* University graduates are taking a two-year course at the Central Institute of Fisheries. They are learning both the administrative and technical aspects of the fisheries industry.

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all, and with rangelands widely overgrazed in most countries, there is an urgent need for national assessments of carrying capacity. Otherwise, there is a real risk that countries will blindly overrun their food carrying capacity, developing massive deficits that will collectively exceed the world's exportable supplies. Recent data showing the level at which the rise in grain yield per hectare is slowing or levelling off in countries with a wide range of growing conditions provide all governments with the reference points needed to estimate the population carrying capacity of their croplands.

China, which already has one of the slowest population growth rates in the developing world, is projected to add 490 million people over the next four decades, increasing to 1.6 billion in 2030. (See Table 10-4.) Currently it is adding 14 million people per year. Meanwhile, its economy is expanding at 10 percent or more annually, fueling steady rises in consumption of pork,

**Table 10-4. Population Growth 1950-90, With Projections to 2030, for the Most Populous Countries**[1]

| | | | | Increase | |
|---|---|---|---|---|---|
| Country | 1950 | 1990 | 2030 | 1950-90 | 1990-2030 |
| | | | (million) | | |
| Slowly Growing Countries | | | | | |
| United States | 152 | 250 | 345 | 98 | 95 |
| Russia | 114 | 148 | 161 | 34 | 13 |
| Japan | 84 | 124 | 123 | 40 | −1 |
| United Kingdom | 50 | 58 | 60 | 8 | 2 |
| Germany | 68 | 80 | 81 | 12 | 1 |
| Italy | 47 | 58 | 56 | 11 | −2 |
| France | 42 | 57 | 62 | 15 | 5 |
| Rapidly Growing Countries | | | | | |
| Philippines | 21 | 64 | 111 | 43 | 47 |
| Nigeria | 32 | 87 | 278 | 55 | 191 |
| Ethiopia and Eritrea | 21 | 51 | 157 | 30 | 106 |
| Iran | 16 | 57 | 183 | 41 | 126 |
| Pakistan | 40 | 118 | 260 | 78 | 142 |
| Bangladesh | 46 | 114 | 243 | 68 | 129 |
| Egypt | 21 | 54 | 111 | 33 | 57 |
| Mexico | 28 | 85 | 150 | 57 | 65 |
| Turkey | 21 | 57 | 104 | 36 | 47 |
| Indonesia | 83 | 189 | 307 | 106 | 118 |
| India | 369 | 853 | 1,443 | 484 | 590 |
| Brazil | 53 | 153 | 252 | 100 | 99 |
| China | 563 | 1,134 | 1,624 | 571 | 490 |

[1] Census Bureau data are used because they are updated more often than the U.N. medium-range projections; the two series are usually similar, but small differences do exist.

SOURCE: U.S. Bureau of the Census, in Francis Urban and Ray Nightingale, *World Population by Country and Region, 1950-90 and Projections to 2050* (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, 1993).

From: Brown, Lester. State of the World New York: W.W. Norton & Company
1994

poultry, eggs, and fish—all produced with grain.[36]

On the supply side, rapid industrialization in China, including the construction of thousands of factories during this decade, is consuming vast amounts of cropland even as the rise in per hectare yield of rice and wheat is slowing. The result, according to a detailed study commissioned by the Australian government, is that China's grain imports could go from 12 million tons in 1993 up to 50-100 million tons by the end of this decade, with the latter amount being above current U.S. exports. If China's economy expands as planned and its population grows as projected, its grain import needs are likely to continue to soar, exceeding by 2015 the world's current exportable grain supplies.[37]

India—already faced with extensive soil erosion and falling water tables—will be adding 590 million people by 2030, even more than China, as its population increases to 1.44 billion. With wheat yields that have already tripled and rice yields that are rising more slowly than in the past, India will find it difficult to support these growing numbers.[38]

The United States, though it is the world's third most populous country, has kept demand for grain well below the sustainable yield of its land, maintaining a large exportable surplus. However, with population projected to expand by 95 million as a result of natural increase and immigration during the next four decades, pushing the total to 345 million in 2030, large areas of farmland will be claimed for housing, schools, and shopping centers. Unless some way can be found to reestablish the rapid rise in yields that prevailed from 1950 to 1984, the exportable grain surplus—which dropped from 100 million tons in the early eighties to 70 million tons in the early nineties as consumption climbed and as highly erodible cropland was converted to grassland—may well continue to fall.[39]

Ethiopia was unable to expand grain production fast enough to keep pace with the 30 million people added between 1950 and 1990. Now it is projected to add, in the next four decades, 106 million people—which would triple its 1990 population. Few believe this will happen. The only question is whether the projected growth will not materialize because the transition to smaller families accelerates or because starvation checks the growth.

For Nigeria, the situation is scarcely any more comforting. After adding 55 million people from 1950 to 1990, Nigeria is projected to add 191 million by 2030. With soils that are already heavily eroded, it is difficult to see how crop yields can rise enough to accommodate this tripling of population to 278 million.

**An environmental assessment for Pakistan noted that the nation's population is projected to reach 400 million.**

Mexico, facing severe water scarcity, is projected to add 65 million people during the next four decades, compared with 57 million in the last four. Wheat yields there have already plateaued, showing no increase in the last nine years. Although there is still an unrealized potential for raising corn yields, it is difficult to see how Mexico can stop its annual grain deficit from rising far beyond the 5 million tons of recent years.[40]

Such projections can be invaluable to national governments. An environmental assessment for Pakistan undertaken with the assistance of IUCN–The World Conservation Union noted that the na-

## green revolution

The green revolution is a popular term coined in the 1960s to describe the recent transfer and diffusion of agricultural technology from the technologically developed countries to less technologically advanced agricultural areas. The most dramatic example of this transfer is the development and rapid diffusion of high-yielding crop cultivars (cultivated varieties) of rice and wheat in tropical areas. These new cultivars have the ability to respond to fertilizer application, with dramatic increases in productivity. Many of them have an insensitivity to photoperiod (length of day) that makes them readily adaptable throughout large areas, and because they are short stemmed, they withstand wind damage and can be more easily harvested by machine. Wheat seed from Mexico and rice seed from the Philippines have greatly increased grain production in India, Pakistan, Malaysia, and Turkey.

The wheat program originated from breeding studies begun in Mexico in the 1940s by the Rockefeller Foundation. This program is now carried out by the International Maize and Wheat Improvement Center, established in 1966 by the Rockefeller Foundation and the government of Mexico. Dr. Norman E. Borlaug, the center's director, received the Nobel Peace Prize in 1970 for his contributions to the wheat-breeding program. The center also conducts significant research in corn (maize) improvement.

The International Rice Research Institute (IRRI) was founded in the Philippines by the Ford and Rockefeller foundations in cooperation with the government of the Philippines. The institute has been instrumental in introducing high- yielding, disease-resistant "miracle" rice varieties to the rice-growing nations of tropical Asia. The IRRI also trains Asian scientists and directs the establishment of new rice-growing technologies.

Within recent years, certain serious problems have become apparent to large-scale users of these new high-yield seeds. They require heavy applications of fertilizers and pesticides, which are both costly and ecologically damaging. In some areas, excessive groundwater use and soil erosion are creating ecological deficits for the future. Some of the disease-resistant rice varieties become vulnerable to infection after five to ten years, compounding the problems of monoculture--the use of only one or two varieties of a cultivar.

Nevertheless, in some parts of Asia the green revolution has had enormous effect. India, for example, has not had a famine since 1965-66. By contrast, areas of Africa with poor soils and recurrent drought suffer periodic famine. The social, political, and economic problems that beset such areas complicate Africa's pursuit of the green revolution.

Jules Janick

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See also: gene bank; plant breeding.

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(8) From "India", The World Book encyclopedia of People and Places.

# Cities and Villages

India has been described as a land of villages. About 72 per cent of its people live in about 557,000 villages. Most of these villages have less than 1,000 people. By contrast, India has about 4,000 cities and towns. Only about 225 cities have populations over 100,000.

Since the 1980's, the population of the cities has grown dramatically. Many villagers leave the rural areas to look for work in cities, where wages are higher.

As a result, India's urban population is growing at about twice the rate of its rural population. Urban growth is concentrated in Bombay, Calcutta, Delhi, and Madras.

## Village life

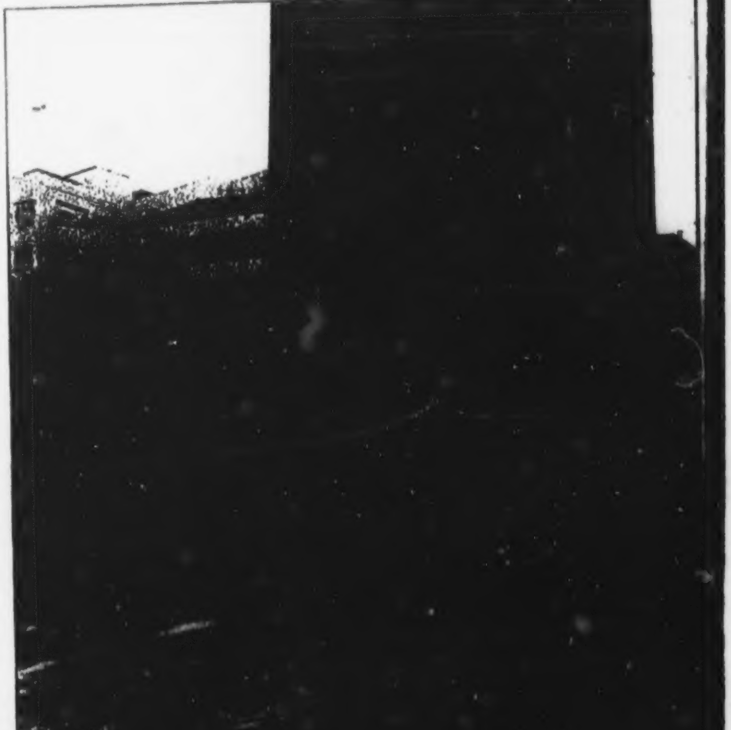
Indian villages, like the people who live in them, look quite different from one part of the country to another. The stone dwellings of the chilly mountain regions are quite unlike the bamboo and matting huts of the hot central and southern areas. Some are small settlements around isolated farms, while others are tightly knit communities built around larger farms.

Life is simple for Indian villagers. Most live in clusters of huts made of mud and straw. These huts usually have mud floors and only one or two rooms. Household articles may include brass pots for cooking, clay pots for carrying water and storing food, and little else. About half of India's villages have access to electricity, although individual homes may not have electric power. Many people use kerosene lanterns.

Many village dwellings have no running water. The women get water from the village well, often the center of activity. They pour the water into pots and carry the pots home on their head.

Meals usually consist of rice and *dal*, a porridge made of *pulses*, which are seeds of such pod vegetables as beans, chickpeas, pigeon peas, and lentils.

Family ties are important to the villagers. Marriages are thought of as a relationship between two families, rather than a union between two individuals. An Indian household may include not just parents and children, but also the sons' wives and their children. Relatives and neighbors often join together to help those who have met with some misfortune.



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FORTVIEW
BANK OF INDIA
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**In Chandni Chowk,** *left,* or Silver Square, the commercial center of Old Delhi, merchants sell silver jewelry, wholesale goods, sweetmeats, handicrafts, and clothing in market stalls.

**An artificial reservoir,** *right,* known as the *village tank,* is often the heart of thousands of small communities throughout India. Many were built centuries ago and may be a village's only source of water.

**In the slums of Bombay,** *below left,* **many people live in shacks made of wood or metal scraps. Others are crowded into high-rise tenement buildings. The slum areas have poor water supplies and sanitation.**

Rural life has improved in many Indian states. In Haryana and Punjab, for example, economic growth has brought such modern conveniences as electricity, improved drinking water and sanitation, and paved roads.

### City life

The cities founded by the Europeans—Bombay, Calcutta, and Madras—have become major urban centers. These cities usually have two separate areas—a British section and an Indian section.

The British section has modern buildings, shopping districts, and wide, treelined streets. Most of the wealthier Indians, and those with high military rank, live in this section. Many of these Indians have adopted Western ways and live in comfortable bungalows.

The Indian section is quite different. The narrow, twisting streets are crowded with bicycles, carts, animals, and people. Millions of people live in terrible slums, where water supplies and sanitation are poor.

**Village children attend school** at Naricanda in the Himalayan foothills. Although government education programs have improved the country's literacy rate, only a third of India's adults can read and write.

(8) From: India", The World Book Encyclopedia of People and Places.

# People

For centuries, many different groups of people migrated to India from other parts of Asia. Today, the descendants of these ancient peoples give the population of India its great variety of ethnic and language groups.

Most people of northern India are descended from the Aryans, an ancient people who invaded the area about 1500 B.C. Descendants of the darker-skinned Dravidians live in the southern part of the country. Dravidians were among the earliest known inhabitants of India.

Muslim people also settled in India. Their descendants are concentrated in the northeast states of Bihar, Uttar Pradesh, and West Bengal. Mongoloid people can be found in the Himalayan regions and in the states that border Burma in the northeast.

India is also home to more than 70 million tribal people who live in remote forests and hills. The largest group, the Gonds, live near the Eastern Ghats. Other tribal groups include the Bhils, Khasis, Nagas, Oraons, and Santals.

## Many languages

Sixteen major languages and more than 1,000 minor languages and dialects are spoken in India. The major languages fall into two groups—the Indo-European and the Dravidian.

About 73 per cent of the people speak the Indo-European languages, which include Hindi—India's most widely spoken language. Also included in this group are Urdu, which is closely related to Hindi, Assamese, Bengali, Gujarati, Kashmiri, Marathi, Oriya, Punjabi, and Rajasthani. These languages come from Sanskrit, the ancient Indian language.

The Dravidian languages, spoken mainly in the southern part of India, include Kannada, Malayalam, Tamil, and Telugu.

Two other language groups found in India are the Sino-Tibetan languages spoken in the northern Himalayan region and near the Burmese border, and the Mon-Khmer languages spoken by some ethnic groups in eastern India.

The principal official language of India is Hindi. Sanskrit and 13 regional languages are also official languages while English is considered an "associate" national language. At least one major regional language is spoken in each state. Elementary and high school students study in their regional language and learn Hindi as a second language. In most colleges and universities, classes are taught in regional languages, but English is widely used.

**Traditional Hindu holy days** involve rich pageantry. Many Indian men wear turbans of various shapes. Because of the hot climate, most Indians wear light, loose clothing.

**A Muslim *Sufi,*** *above,* wears the traditional woolen garments for which this Islamic sect was named. *Sufi* comes from the Arabic word for wool.

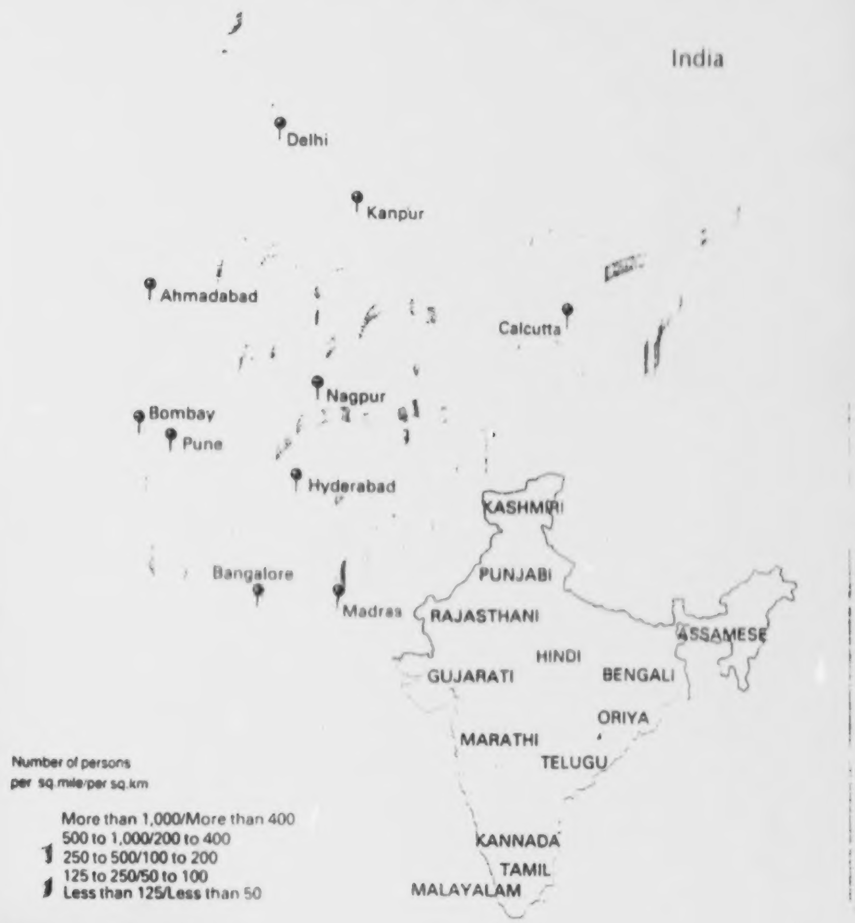
**The Toda people,** *below,* **live in small, thatched houses nestled in the Nilgiri Hills of the southern state of Tamil Nadu. They herd buffalo and make cane and bamboo articles. Very few Toda survive today.**

Because so many languages are spoken in India, communication and understanding between ethnic groups has often been difficult. However, a more serious problem facing the Indian people today is overpopulation.

## The population problem

India is the second most-populated country in the world. In recent years, due to improved sanitation and health care, the death rate has dropped more rapidly than the birth rate. During the 1970's and 1980's, India's population increased by up to 14 million people a year.

Overpopulation has caused serious overcrowding throughout India, particularly in the cities. In Calcutta, for example, the population density averages about 79,000 people per square mile (30,500 per square kilometer).


Delhi
Kanpur
Ahmadabad
Calcutta
Nagpur
Bombay
Pune
Hyderabad
Bangalore
Madras
KASHMIRI
PUNJABI
RAJASTHANI
ASSAMESE
HINDI
GUJARATI
BENGALI
ORIYA
MARATHI
TELUGU
KANNADA
TAMIL
MALAYALAM
Number of persons per sq.mile/per sq.km
More than 1,000/More than 400
500 to 1,000/200 to 400
250 to 500/100 to 200
125 to 250/50 to 100
Less than 125/Less than 50

**Schoolchildren** in the southern seaport of Madras often eat a lunch of traditional vegetarian food. A typical meal consists of grains and spiced vegetables. Most Hindus do not eat beef, and some eat no meat at all.

**This young Rajasthani,** *left*, is a member of the Aryan ethnic group. Most Rajasthanis speak an Indo-European language that comes from Sanskrit.

Millions of people live in slum dwellings. Often, an entire family inhabits a one-room shelter made of scraps of wood or metal. Many others are so poor that they have no home at all and must sleep in the streets.

About 40 per cent of India's population is made up of children aged 14 or under, and schools are overcrowded. Many children must drop out of school to help support their families. Only about a third of India's adults can read and write. Their lack of education limits their job opportunities and, as a result, they continue to live in poverty.

To help control population growth, the government has introduced programs that encourage people to have smaller families.

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THE ASIAN AGE 20 JULY 1998 2

# Terminator gene threatens food security in India

**New Delhi, July 19:** Terminator-III is not the sequel to an Arnold Schwarzenegger blockbuster. It is the greatest threat ever to Indian farming and food security in this country.

"It is nothing short of biotechnological warfare," says leading food expert Devinder Sharma in reference to the Terminator, a plant gene which allows seeds to "self-destruct" after producing a single crop.

Terminator was developed by the United States department of agriculture in collaboration with Delta and Pine Land, a seed company now under acquisition by the biotechnology giant Monsanto, which already has extensive interests in this country.

Union minister of state for agriculture Som Pal admitted in Parliament this week that the Terminator's self-destructive traits could spread through cross-pollination and cause the gradual extinction of India's traditional crop varieties. "It has been concluded by a number of crop geneticists that there is a likelihood of pollen carrying the Terminator gene to crops in adjoining farmer's fields," Mr Som Pal said.

India, Mr Som Pal said, has responded by banning the import of seed containing the Terminator gene and directed the quarantine office to ensure that no seed with "trans-genic material" be released with the approval of the plant protection authority.

But the director general of the Indian Council of Agricultural Research, Dr R.S. Paroda, said there is no way to ensure that the Terminator does not cross Indian borders as this can happen by accident or by design. "It is a customs problem," he said. Mr Devinder Sharma criticises the steps announced by Mr Som Pal as "cosmetic." *(UNI)*

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(9)

# IIHR developing disease-resistant vegetables, crops

By Seema Singh

The Times of India News Service

**BANGALORE: The Bangalore-based Indian Institute of Horticultural Research (IIHR) is in the process of developing genetically engineered fruits and vegetables which will not only be resistant to diseases but also have a longer shelf life. "One of the biggest advantages of genetically engineered crops is that there is no need to spray harmful chemicals as some of these plants produce their own pesiticides. This is not only healthy, but also proves cost-effective for the farmer," according to IIHR biotechnology department head Lalitha Anand.**

**The virus resistant crops being developed include water melon, citrus fruits, and tomato. IIHR is also developing tomato which is resistant to its common fungal disease — leaf curl. "We are not as strong as the United States and Europe in this field, but we have made a modest beginning." While the research ccontinues in full swing, some scientists are wary of the social acceptance of such crops by consumer groups. However, Prof Anand does not agree, "Normally we use genes from plant sources but in some cases, genes from the virus itself are taken. The only fear is that genes-jumping make nearby weeds resistant to a particular herbicide. But research has shown that there is no scope for this."**

**The increasing interest in genetically modified plants is evident in the closer ties developed between agro-chemical firms and biotechnology companies.Pest resistant maize, cotton and potatoes and herbicide-tolerant soybeans have been grown in the US for sometime now. But India has only recently woken up to developing and cultivating genetically engineered crops.Though a few Indian companies have collaborated with multi-national agro-chemicals, for instance Maharashtra Hybrid Seed Company with the US giant Monsanto chemicals, Indo-American hybrid seeds is the only Indian company to have taken up genetic engineering crops on a large scale.**

The Times of India, July 1998.

11

# Promising durum wheat for Karnataka

By Our Agriculture Correspondent

A HIGH-YIELDING durum wheat, which has field resistance to rust and good adaptability to the warmer winters, has been developed by scientists at the University of Agricultural Sciences (UAS), Dharwad. The variety with high yields and other good grain characteristics has been released for commercial cultivation in the wheat growing regions of Karnataka. It is highly suited for timely sown irrigated conditions, according to the scientists.

Durum wheats are being cultivated in Karnataka in rainfed conditions. These wheats have larger mass of awns when compared to the total spike mass. They are basically low yielders. But the durum varieties command a premium price in the domestic and international markets because of their superior quality.

## For the Farmer's Notebook

Considering the importance of this species in the region, irrigated durum wheat improvement programme was launched at the Wheat Improvement Project, Dharwad as early as 1985. After years of intensive research and extensive field testing the new variety of high yielding durum wheat, known as DWR-185, has been released, according to them.

The improved semi-dwarf durum wheat is a cross between CPAN 6018/2 and Raj-1555. Endowed with field resistance to rust and an ability to do well in warmer winters, it has overcome the two major limiting factors of wheat cultivation in Peninsular India. It was not susceptible to these diseases even when artificially inoculated. The grains have good appearance, high test weight, better semolina recovery and sedimentation values.

The variety has been evaluated in Peninsular India for four years and it recorded a high yield of 4.3 tonnes grains per hectare, as compared to 3.8 tonnes per hectare by the check variety HD-4502. In Karnataka in all the trials for seven years, this variety recorded above 15 per cent superiority in yield.

In agronomic experiments, DWR-185 has out yielded the performance of HD-4502 in dates of sowing, fertiliser responsiveness and in irrigated conditions. This variety is also tolerant to heat stress and is suitable to limited irrigation as evidenced by the agronomic trials.

In frontline demonstrations over 24 hectares in different farmers' fields spread over the State, DWR-185 recorded an average yield of 5.075 tonnes per hectare when compared to 4.215 tonnes per hectare of HD-4502. It is 20.5 per cent increase over the check variety.

The new variety matures earlier than the check variety by ten days. It yields amber, hard and bold grains. The straw is also highly relished by animals. This variety is becoming popular among the farmers in the irrigated wheat tracts of Karnataka, according to the scientists.

The Times of India July 1998

From "India", The World Book Encyclopedia of People + Places.

#11

# Agriculture

Agriculture is the largest and most important part of India's economy. Farms cover more than half of the country's area and about 60 per cent of Indian workers make their living by farming.

India's farmers grow a variety of crops, and India has the world's largest cattle population. Because cows are sacred to Hindus, they are not butchered for meat. Farmers keep cows for milk production and for plowing. After the cows die, their hides are used to make leather.

## Crop production

About 80 per cent of India's farmland is used to grow grains and *pulses*, the country's main foods. Pulses are the seeds of various pod vegetables, such as beans, chickpeas, and pigeon peas. The major grain crops are rice, wheat, millet, and sorghum.

India grows half of the world's mangoes and ranks as the world's leading producer of cashews, millet, peanuts, pulses, sesame seeds, and tea. It is also the world's largest grower of *betel nuts*, which are palm nuts chewed as a stimulant by many people in tropical Asia.

India is one of the world's leading producers of cauliflowers, jute, onions, rice, sorghum, and sugar cane. Indian farmers are also major producers of apples, bananas, coconuts, coffee, cotton, eggplants, oranges, potatoes, rapeseeds, rubber, tobacco, and wheat. In addition, they grow such spices as cardamom, ginger, pepper, and turmeric.

## Indian farms

Most farms in India are quite small. Half are less than 2-1/2 acres (1 hectare) in area and only 4 per cent cover more than 25 acres (10 hectares).

About two-thirds of India's farmers own their own land, but many of these farms become smaller with each succeeding generation because of Indian inheritance customs. When a man dies, his land is divided up equally among his sons. In time, the property often becomes too small to cultivate profitably. To solve this problem, many state governments have set limits on how much a farm can be divided.

**At harvesttime,** women gather in the rice fields to cut the stalks with sickles. Rice is the staple crop in the eastern and southern regions. The world's second largest rice producer, India also exports some high-quality rice.

**With the help of a pair of oxen,** *right*, a farmer plows a wheat field near one of the famous Hindu temples in Khajuraho. Wheat is one of northern India's main foods. The people enjoy *chapatties*, thin, flat, baked breads made of wheat flour.

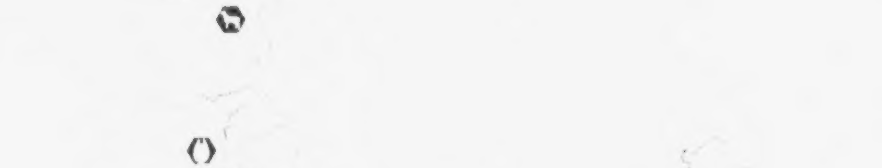
India's farmers have two growing seasons: the main summer cultivation period, called the *kharif;* and the secondary winter season, the *rabi*. The kharif season produces the main harvest, provided the summer monsoon brings the proper rainfall.

In recent years, the rains have failed frequently and harvests have been smaller. Crops also suffer in the eastern part of the country when the Ganges and its branches flood the plains.

### Recent developments

India is a land of small farms that use family labor and work animals to till the land. In recent years, the government has introduced new varieties of seeds, as well as new ways of using fertilizer and modern irrigation systems. These changes have helped Indian farmers increase their crop production.

**Tea plants grow throughout India,** *left,* but the best-producing areas are in southern India and Assam. The well-known Darjeeling tea grows on hillsides near the city of the same name. India produces 1-1/2 billion pounds (670 million kilograms) of tea a year.


Delhi
Kanpur
Ahmadabad
Calcutta
Bombay
Hyderabad
Madras
Intensively cultivated land
Other cultivated land
Grazing land
Forest land
Generally unproductive land
Barley
Cattle
Cotton
Forest products
Goats
Jute
Millet
Peanuts
Pepper
Rice
Sheep
Sorghum
Sugar cane
Tea
Tobacco
Wheat

**The richest agricultural regions of India** are the Northern Plains, the Punjab, Gujarat, the Deccan, and the coastal regions. India now produces enough food to meet most of its needs. But floods and droughts still result in food shortages in some areas.

(12)

# MP CM, farmers in thousands court arrest

Times of India 7/4/98

The Times of India News Service

NEW DELHI: Madhya Pradesh chief minister Digvijay Singh, several other senior Congress leaders, and thousands of farmers from the state courted arrest outside Parliament House on Friday, demanding immediate Central aid for relief to farmers affected by natural calamities. Later, a Congress delegation comprising the chief minister, former Union ministers Madhavrao Scindia, Arjun Singh, V C Shukla, party spokesman Ajit Jogi, PCC chief Urmila Singh, and several other leaders from the state called on Prime Minister Atal Behari Vajpayee and reminded him of his promise of aid at the rate of Rs 5,000 per acre to the affected farmers, made during the Lok Sabha elections.

Mr Digvijay Singh said what had saddened him most was that despite being from the state Mr Vajpayee had not come to the rescue of a large number of farmers whose crops were damaged due to excessive rains and hailstorm.

Mr Singh said the delegation submitted similar memoranda to Mr Vajpayee and President K R Narayanan demanding Rs 2,960 crore Central aid for relief to farmers hit by natural calamities.

As against the requirement of Rs 2,960 crore to meet the situation arising from different natural calamities, including the earthquake at Jabalpur, Mr Singh said, the state received from the Centre only Rs 67.76 crore. "The extent of damage is too vast for the state to meet the situation," he emphasised.

Regretting the delay in sending a Central team to assess the damage despite its assurance to the state, the memoranda said loss to crops in any state was a national loss which the Centre should not overlook.

Mr Singh said Mr Vajpayee assured the team that a meeting of chief ministers would be held on July 24 to discuss the modalities for giving relief to states from the national calamity fund. Earlier, Mr Singh led about 10,000 farmers in a dharna. The matter also figured in the Rajya Sabha when Congress member Balkavi Bairagi demanded adequate Central assistance to meet the situation arising out of heavy unseasonal rains and hailstrom.

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# M-P farmers

Times of India July 1998.

**NEW DELHI:** Madhya Pradesh Chief Minister Digvijay Singh today lashed out at the BJP-led Government at the Centre for what he called backtracking on its assurance to provide adequate assistance to the farmers of the State whose crop was affected due to various calamities, reports UNI.

Mr Singh led a demonstration of thousands of affected farmers near the Parliament House to highlight their grievances. Several Congress leaders, including former Chief Ministers Shyama Charan Shukla and Motilal Vora, former Union Ministers Madhavrao Scindia and Vidya Charan Shukla, and 45 State Ministers and Legislators, participated in the demonstration.

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Sample of possible supplemental homework assignment

## ding for a Purpose

**or these important words:**

**ords**
- ent action
- ma
- *harijans*
- boycott
- *satyagraha*

**People**
- Mohandas Gandhi
- Jawaharlal Nehru

**for answers to these questions:**

at experiences shaped Mohandas Gandhi's political liefs?

hat way of gaining political change did Gandhi suggest?

ow and when did India gain its independence?

hat disagreement resulted in the division of India at he time of its independence?

## India as a Nation

Late in the nineteenth century, a oup of Indian leaders declared that dia was able to run its own govern-ent. The leaders did not agree about w to do this. Some wanted a modern dustrial state. Others wanted India return to village life. Still others anted rule by a Muslim government. hey were united on only one idea— hey all wanted the British to leave.

Even after Indian troops helped Great Britain in World War I, the British refused to set a date for Indian freedom. Many Indians took action. They placed bombs in British offices, clubs, and trains. They attacked British soldiers. These attacks added confusion at a time when India was suffering from other problems. Unemployment, sickness, and hunger were widespread. In the middle of this confusion, the Indian people increasingly turned to a single leader: **Mohandas Gandhi** (MOH•han•dahs GAHN•dee).

### Mahatma Gandhi

During his lifetime, Gandhi showed no outward sign of importance. Being shy, he always had difficulty speaking to crowds. At the end he was frail and bent, unable to walk without a cane. When he died at age 78, his only possessions were some eating utensils, a pen, and a spinning wheel.

Gandhi left his people something more important than speeches or possessions, though. He left a major idea. It called for people to gain justice without physically attacking their enemies. Gandhi suggested **nonviolent action** as a way of political change.

His background helped Gandhi to develop this idea. He came from a large, loving family. Especially important was his mother. Very religious, Mrs. Gandhi told her son all the ancient Hindu stories. She urged him to respect all forms of life and to avoid bringing harm to anyone or anything.

To boycott the hated British salt tax, Gandhi (center) led thousands of followers to the coast. There he showed Indians how to take salt from the sea

When Gandhi came to choose a profession, these ideas affected him. Should he become a doctor? No, he thought, a doctor might have to operate on and thus possibly harm those he cared for. One of his older brothers suggested that he go to England and study law.

When he returned to India with his English clothes and a law degree, Gandhi was still too shy to appear in court. Some fellow lawyers rescued him by sending him to South Africa on business. This trip changed Gandhi's life. As soon as he arrived in South Africa, conductors threw him off a train for refusing to ride in a separate "colored" section. The night Gandhi spent shivering in a cold station gave a new purpose to his life. He would combine his knowledge of law with his wish to help his suffering people.

Gandhi set aside his English suits. He began to wear Indian clothing again to show he was proud to be an Indian. He spoke to groups of Indians in South Africa about human rights. He urged them to work to change the laws that kept them servants to the whites.

Gandhi suffered greatly for his actions. He refused to hate, however, or to urge his followers to fight. Feelings of race hatred could not be ended by violence, he believed. When people in India heard of Gandhi's work, they began to call him the **Mahatma** (mah•HAHT•muh), which means "holy one" or "great teacher."

By 1915 Gandhi was back in India, leading the groups that were opposed to the British. Most people, especially the poor, followed him. He took the side of the untouchables at the very bottom of the caste system. Gandhi began to call them by a new name—the **harijans** (HAR•uh•jahnz), which means "children of god." He said the *harijans* had been blessed by their suffering.

With millions of people behind him, Gandhi developed peaceful methods to fight the British. He led his followers in many nonviolent actions. Thousands would stop work for a day or two even though they had to go without pay. Millions of Gandhi's supporters would **boycott**, or refuse to buy, British goods. Sometimes Gandhi and his followers would sit down in factories or in the middle of streets. Women would even lie along railroad tracks to stop trains. By halting traffic and business the Indians harmed the British in a nonviolent way.

Gandhi and his followers often were beaten or jailed. Even in prison, however, Gandhi had effect as a leader. He wrote, or prayed, or went on long hunger strikes to unite his followers. The whole world came to know what Gandhi called **satyagraha** (SUT•yuh•gruh•huh), or "truth force."

## Indian Independence

By the end of World War II, the British realized they would have to leave India. In 1947 they passed governing power to **Jawaharlal Nehru** (juh•WAH•huhr•lahl NAY•roo). With Gandhi's support, Nehru would be India's first prime minister. India had once again come under the control of the Indian people.

Fighting was not over, however. India's Muslims had split with Hindu leaders over the type of government India should have. Muslims began to flee northward to where most other Muslims lived. As these refugees left the south, they both attacked and were attacked by Hindus. The fighting and riots left thousands dead.

Jawaharlal Nehru wanted to unite India and create a modern, highly industrialized, and peaceful nation.

When the new conflict ended, there were two nations on the Indian subcontinent. One, called Pakistan, held the northwest and northeast corners of the land. Its people and government were mainly Muslims. The rest of India, about 80 per cent Hindu, began the country's first democratic government with Nehru as leader.

The same fight that divided India produced another victim. An assassin who blamed Gandhi for the division of India shot him to death. The whole world mourned the death of India's great leader.

### Reading Check

1. Who led India's peaceful fight for independence?
2. When did India gain independence?
3. Why were two countries formed?

Think Beyond What do you think Gandhi meant by *satyagraha*, or "truth force"?

## Reading for a Purpose

**Look for these important words:**

**Key Words**
- extended family
- bullocks
- pesticides
- neutral

**People**
- Indira Gandhi

**Look for answers to these questions:**
1. How were Prime Minister Nehru's plans for India different from Gandhi's?
2. What is life like in the cities and villages of modern India?
3. How has the Indian government tried to help India's many people?
4. What is India's relationship with other nations?

## 5 India Today

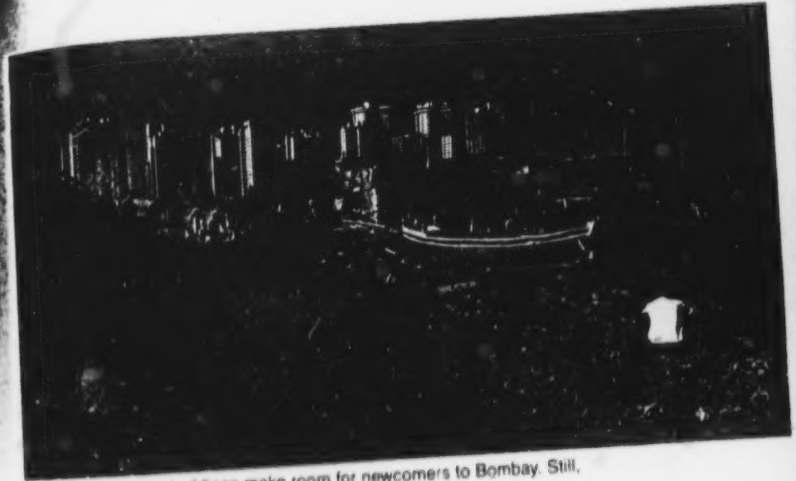
Before Gandhi died, he had planned for India's future. He thought the Indian people would do best if they went back to small businesses and the old village way of life. Villagers could raise their own food. India's weavers could again learn to spin and weave in their cottages. In this way Gandhi believed India's large population could compete with modern industries.

Prime Minister Nehru disagreed with Gandhi. He wanted to develop India in the way of European nations. He said, "She [India] has to come out of her shell and take full part in the life and activities of the modern age."

With Gandhi gone, Nehru's plan was adopted. Indians created new factories, highways, mines, and railroads. The cities of Bombay, Delhi, and Calcutta grew to many millions of people. Modern buildings shot up everywhere. Many people began to live in much the same style as Europeans.

This rapid growth has led India to become one of Asia's largest industrial nations. Rapid growth also has caused problems for India. As millions of villagers continue to move to the cities to find work, urban areas are more crowded than ever. Many factory workers today live jammed into small apartments. They must walk or ride bicycles many miles to their jobs. Many cannot find jobs at all. For such city dwellers, life is hard. Some put up flimsy shacks. Others live in the streets with no homes at all. Poverty and sickness are widespread.

The Indian government has spent much money to improve the cities. Homes and apartments have been built. However, some Indians think that more housing attracts even more people from the villages. The cities only get more crowded. They agree with Gandhi, who said, "Go to the villages. That is India, therein lies the soul of India."



Modern apartment buildings make room for newcomers to Bombay. Still, thousands of Indians live in slums and have no water or electricity.

Cattle, sacred to Hindus, roam freely in many areas of Indian cities. The twisted streets are too narrow for cars, so many Indians ride bicycles.

Most Indian marriages are still arranged by the parents of the bride and groom.

Home industries such as spinning cotton thread provide families with income.

## Village Life

Today about 75 percent of India's more than 800 million people live in villages. A typical village contains a few hundred households. Each household forms what is often called the **extended family.** As many as 30 relatives may live together and support each other in one household. A family might include a grandmother, an aunt or uncle, and the wives and children of two brothers. Another brother may live in the city and work in a factory. He may send most of his salary home to help the family.

Indian villages are much the same as they have always been. Farming families may own a few acres of rice paddy or cotton field. Other families may be carpenters, weavers, or potters. These workers do the same caste jobs that their fathers did. In return for their work, they are usually paid in goods, not money.

Three or four old Brahman families may own land, which they do not farm. They earn their living by renting the land to tenant farmers, who give them a share of the crop. The job of a Brahman is to teach at a small school and perform religious services. As payment, they receive food from farmers and services from craft workers.

In most places farmers work in the old way. They plow their fields with wooden plows pulled by oxen called **bullocks.** They sow the seed and then pray for the monsoons. Some farmers have learned to use fertilizers, new seed, and **pesticides** provided by the government. Pesticides are chemicals used to kill insects. This increases farmers' crops, but their profit stays small because pesticides are expensive.

Barefoot and using an old-fashioned wooden plow, a village farmer drives his oxen through the soil of an Indian field.

Many farmers hope that the government will start irrigation projects. With extra water they could farm more vegetables in the winter season. They could earn cash to buy some of the goods they need.

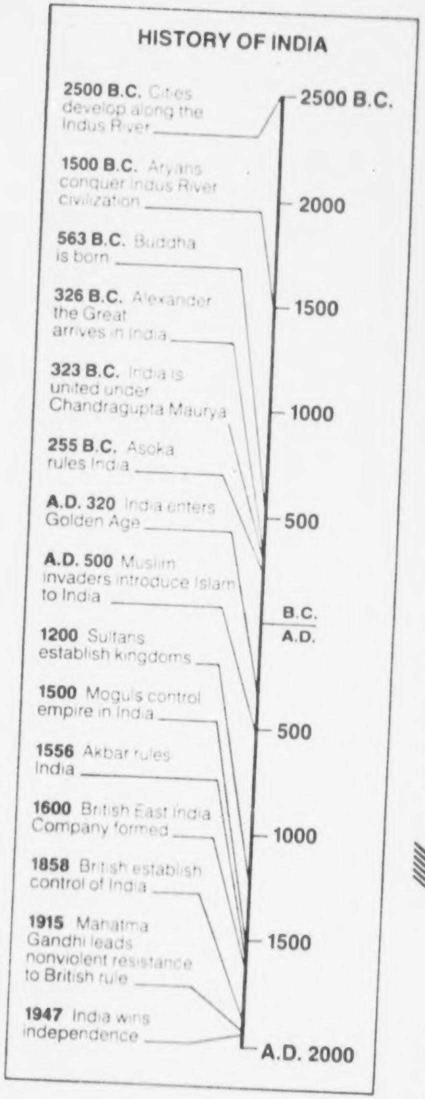
India's government has made many attempts to solve the problems of its nation of villagers. It has sent experts to teach farmers better farming methods. It has allowed foreign companies to build fertilizer factories in India. It has introduced modern farm machinery to replace animal power. It has passed laws to do away with the caste system.

Still, many villagers cling to the old ways. Most continue to live according to caste rules. They say this at least provides everyone with a job and a sense of belonging. Many also refuse to eat wheat grown in other countries or new types of rice grown with fertilizers. As for machines, most do not work well on small plots of land. Gasoline is too expensive. The old ways seem to work best.

## Facing the Future

The tasks ahead for India's government are difficult. Population continues to grow, putting greater demands on the food supply. India's many new industries need power. Even with new dams for water power and new atomic power plants, more is needed.

While trying to meet these and other needs, India's leaders have tried to keep India **neutral.** A neutral country does not take sides in the disagreements of other countries. India has accepted aid from both communist and democratic nations. India's leaders have refused to take sides in struggles between the Soviet Union and the United States. Nor does India want to risk offending its powerful neighbor, China.


HISTORY OF INDIA
2500 B.C. Cities develop along the Indus River
1500 B.C. Aryans conquer Indus River civilization
563 B.C. Buddha is born
326 B.C. Alexander the Great arrives in India
323 B.C. India is united under Chandragupta Maurya
255 B.C. Asoka rules India
A.D. 320 India enters Golden Age
A.D. 500 Muslim invaders introduce Islam to India
1200 Sultans establish kingdoms
1500 Moguls control empire in India
1556 Akbar rules India
1600 British East India Company formed
1858 British establish control of India
1915 Mahatma Gandhi leads nonviolent resistance to British rule
1947 India wins independence
2500 B.C.
2000
1500
1000
500
B.C.
A.D.
500
1000
1500
A.D. 2000

Indira Gandhi dominated Indian politics for nearly 20 years.

Nehru's daughter, **Indira Gandhi**, became prime minister in 1966. She attempted to carry out her father's policies. Today's leaders continue to work to help solve problems of food, energy, and population growth.

A major challenge is to persuade all Indians to pull together as a nation. New ideas spread slowly among people who speak 14 major languages and about 1,000 forms of those languages. Almost two-thirds of these people cannot read or write *any* language. India's success depends on Indians working together to plan their future.

## Reading Check

1. How has rapid growth created problems for India?
2. Do most of India's people live in cities or in villages?
3. How does the Indian government try to help village farmers?

Think Beyond Do you think a nation must become modernized to provide a good life for its people? Explain.

# People MAKE HISTORY

## Benazir Bhutto

### 1953–

In 1988 voices rose up all over Pakistan. "Wazir-e-Azam, Benazir!" Prime Minister, Benazir! the people cried out. Benazir Bhutto, the new prime minister of Pakistan, had just become the first woman in modern times to lead a Muslim nation.

Benazir Bhutto was born in Pakistan to a wealthy Muslim family active in politics. Bhutto's father, Zulfikar Ali Bhutto, was often away on government business. Although she did not see him much, the times Benazir spent with her father were special. She fondly remembers him telling her stories about leaders in history, such as Alexander the Great and Napoleon.

When Bhutto was 16, she came to the United States to study at Radcliffe College. She did well in her studies and went on to Oxford University, in Britain, to study politics, philosophy, and economics. In the meantime her father became prime minister of Pakistan.

In 1977 she returned to Pakistan, planning a career in foreign service. However, within only days of her return, her father was overthrown in a military takeover. General Mohammad Zia ul-Haq, the leader of the military, took power. Benazir Bhutto's father was put in prison and hanged in 1979 despite pleas from world leaders for his release. For the next seven years Bhutto herself was repeatedly arrested and imprisoned. During that time her younger brother died from poisoning. Bhutto blamed General Zia's followers.

Finally, in 1987 Bhutto got a chance to fight back. General Zia was killed in a plane crash. A new prime minister was to be chosen in the first democratic election held since 1977. After a difficult campaign Benazir Bhutto won the election.

Bhutto's victory was seen around the world as an amazing achievement. Despite family tragedy and Islamic customs that discourage most Muslim women from taking part in politics, Bhutto became a world leader. In addition, she restored democracy to a long-divided nation. Since her election, she has worked hard to improve the lives of her people.

**Think Beyond** What personal qualities do you think Benazir Bhutto needed to become prime minister of Pakistan?

FRom: The World Past and Present WorkbooK

NAME ______________________________ Use with text pages 384–388.

# — WORDS and IDEAS —

## India in the Present

WORDS

○ Read the clues. Then look across and down the rows to find the hidden words. Circle each word.

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D | I | T | O | N | Y | Z | R | E | O | T | H | M | E | V |
| B | E | X | T | E | N | D | E | D | F | A | M | I | L | Y |
| L | A | V | H | U | J | B | U | L | L | O | C | K | S | B |
| N | P | E | S | T | I | C | I | D | E | S | A | F | G | H |
| I | N | D | I | R | A | G | A | N | D | H | I | S | T | U |
| Y | B | V | E | A | J | W | P | S | E | K | N | O | A | D |
| C | Q | R | H | L | O | D | A | I | T | B | V | F | S | O |

1. oxen used by Indian farmers to plow fields
2. two or more related families that live together (2 words)
3. daughter of Nehru and former prime minister of India (2 words)
4. taking neither side in a disagreement
5. chemicals used to kill insects

IDEAS

○ Put each set of events in the correct order.

1. ____ Many people moved to the cities to find jobs.
____ Nehru's plan to develop India in modern ways was adopted.
____ Urban problems resulted from rapid growth.

2. ____ Many people have returned to the old methods of farming.
____ Modern farm machinery was used to replace animal power.
____ Many machines did not work well on small plots of land.

3. ____ Nehru's daughter continued to carry out his policies.
____ Indira Gandhi became prime minister in 1966.
____ Nehru accepted aid from communist and democratic nations.

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From: The World Past + Present Workbook

NAME ____________________

# WORDS and IDEAS

## India's Path to Independence

### WORDS

○ Draw a line to match each word or name with its description.

| | |
|---|---|
| 1. Mohandas Gandhi | a word used by Gandhi meaning "truth force" |
| 2. Mahatma | a word meaning "children of god" |
| 3. boycott | a leader who helped India gain independence |
| 4. satyagraha | a word meaning "holy one" or "great teacher" |
| 5. harijans | a word meaning "to refuse to buy" |

### IDEAS

○ Write the answer to each question on the line.

1. Late in the nineteenth century, what did all Indian leaders agree that the British should do? ____________________
2. What method of action did Gandhi teach as a way to achieve political change? ____________________
3. How did Gandhi feel about all forms of life? ____________________
____________________
4. Why did Gandhi stop wearing English clothes and begin to wear Indian clothing again? ____________________
5. What did Gandhi urge Indians in South Africa to do? ____________________
____________________
6. Largely as a result of Gandhi's method, what did the British do after World War II? ____________________
7. What new country was founded by the Muslims of India? ____________________

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# Religion and Food

Objective / Aim: For social studies students to describe and list various Indian religious beliefs, values, and practices related to the sacredness of food and animals so that when asked to compare and contrast to American beliefs, values, and practices regarding the sacredness of food and animals, students can do so with 80% accuracy.

Materials:
1. Handouts and zeroxes of photos on Hindu, Muslim, & Jain beliefs and practices.
2. Handouts on Gandhi's beliefs
3. News articles on "Fasting by K L Sharma"
4. Copies of Cartoons and articles on cow slaughter ban, Vegetarianism, food waste, animal farming in the U.S.

Vocabulary

ahimsa - non-violence toward any living being
vegetarian - a person who primarily eats vegetables and grains and no animal products
non-vegetarian - a person who includes animal parts in his / her diet
fast - to go for a long period of time without eating and/ or drinking any food or water
satyagraha - protest

Motivation: Give students cartoons about cows and deer . Discuss student's reaction and ask students what they think the beliefs of the person who made the cartoon are about animals. Show them pictures of cows wandering streets in India and article on cow slaughter ban. Ask students how cartoons and pictures might be related. and to offer explanations for why cows are in the s streets.

Guide students to see that cartoon, pictures and article suggest beliefs of non-violence and acceptance toward animals. Discuss and write down reasons why animals should not be killed and allowed space to live.

Explain to students that in India many people believe as part of their religion that certain animals or that all animals should not be killed. Explain that we will be learning these beliefs and comparing them to our own.

Do Now / Strategies:

1. Students will be given handouts explaining and showing various beliefs and practices related to three different religions regarding food and the eating of animals.
2. Students should fill in chart breaking down differences in three religious groups beliefs.
3. After discussing and insuring that students understand religious restrictions, students should read about Gandhi's and KL Sharma's "Beliefs in Action".

Homework: Students should then answer questions about religious beliefs and actions , comparing American views with Indian views. They can read article from the Farm Animal Reform Movement & PETA regarding animal rights and activism by these group members.

# Religion and Food

Read and look at the pictures in the following pages and then fill in the chart that follows. Remember, you are trying to find out what three religious groups in India believe about food and animals.

| Name of Religion | Beliefs About Diet, Animals / Restrictions | Practices involving food & animals |
|---|---|---|
| Hinduism | | |
| Islam | | |
| Jainism | | |

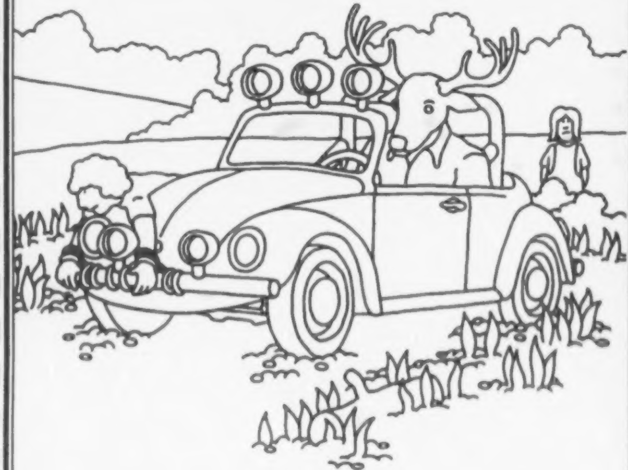
After filling in the above chart read the newspaper article and book excerpts about K.L. Sharma and of Mahatma Gandhi. Then answer the following questions.

1. What is K.L. Sharma upset about?
2. How is he protesting this problem?
3. Why do you think he believes people will react to his actions?
   What does this tell you about Indian people's attitude toward food?
4. Which religion do you think he might practice? Why?
5. What was Gandhi upset about?
6. How did he protest this problem?
7. Why did the British get upset?
8. What does this tell you about Indian people's attitude toward food?
9. What type of diet does Gandhi believe Indian people should eat? Why?
10. What religion might Gandhi practice?
11. Do you know any Americans that have similar beliefs about animals and food as Hindus, Muslims, Jains, K.L. Sharma, and Gandhi? Explain.

12. Do you know any Americans who have used food to protest certain problems? Explain. Be sure to tell what the Black Muslims in America believe about diet.
13. Read the article from FARM. What does this group believe about animals? How have they tried to teach and get support for their beliefs?
14. What do you think Americans can learn from Indian religions and K.L. Sharma and Gandhi about animals and food?

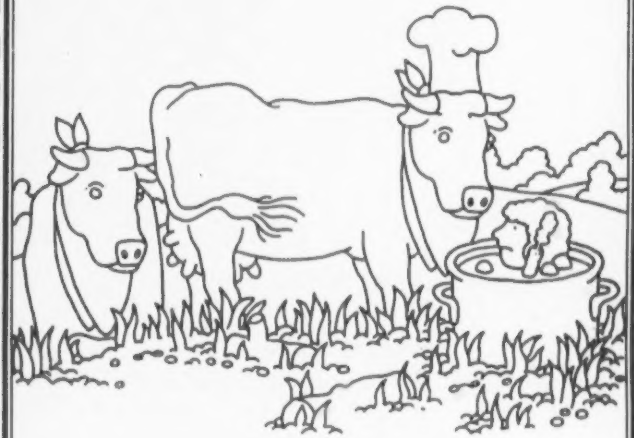
Vocabulary

ahimsa - non-violence toward any living being
vegetarian - a person who primarily eats vegetables and grains and no animal products
non-vegetarian - a person who includes animal parts in his / her diet
fast - to go for a long period of time without eating and/ or drinking any food or water
satyagraha - protest



Wouldn't it be awful, wouldn't it be queer
to be playing in the woods and be shot by a deer?
To be strolling with friends in the afternoon sun,
Just to be stopped by a deer with a gun
And blasted to bits while out having some fun?
So consider this thought and remember it clear,

It wouldn't be fun to be shot by a deer.



How would you feel if a cow ate you?
Caught you and bopped you
And chopped you in two,
Fried you or broiled you or put you in stew
With carrots, potatoes, or an onion or two?
So sometime at dinner when you're starting to chew,
Put down your steak and ponder this through,

How would you feel if a cow ate you?

From PETA Resource Packet.

The Times of India July 19, 1998

# State to strictly enforce cow slaughter ban

ASSEMBLY QUESTIONS

**By A Staff Reporter**

GANDHINAGAR: The state government has decided to deal firmly with those who violated the ban on cow slaughter and the police force has been asked to use provisions of PASA against the culprits, minister of state for Home Haren Pandya, announced in the state assembly while replying to queries from the members.

Intervening in the brief debate, during Question Hour, Chief Minister Keshubhai Patel also endorsed the statement of Mr Pandya.

He said the government would impound the vehicles engaged in illegal transportation of cow and progeny as demanded by ruling party members, who alleged that the illegal activities were carried out by certain identified transporters and the government should take firm action against them.

He said the senior officials have been asked to seek explanation of those police officials who were not serious about the enforcement of the rules in this regard.

Mr Pandya assured the members that if need be the state government would launch a special drive against such nefarious elements.

A BJP member from Deesa demanded that the state government should set up a special police station on Gujarat-Rajasthan checkpost in Banaskantha district from where cow and progeny are transported to Mumbai.

The government should strictly implement the Animal Cruelty Prevention Act and other provisions of the Bombay Police Act.

**Seizure of TNT in Kutch**

The home minister, while replying to a calling attention motion tabled by Lalitbhai Patel of the Congress, said that the Bhuj city police has seized a bag containing TNT type explosives from Khengar Park- Patvadi Road last week.

The district police superintendent of Kutch had called army and BSF officials and showed them the explosives and the police have also summoned a team of Forensic Science Laboratory of Ahmedabad for a thorough checking of the seized explosives.

The minister told the House that the state government has put the police on maximum alert in the border district of Kutch and the seizure of the explosives was its proof.

Some BJP members demanded that the government should set up a special cell to monitor the subversive activities in the border area and also urged action against the local residents who were harbouring anti-national elements who sneaked in from across the Pakistan border with Kutch.

**Road accidents**

As many as 3,745 people lost their lives and 18,361 were injured in 7,714 accidents on national highways and 11,461 accidents on state highways during 1997-98, the Chief Minister told Manubhai Parmar of the Congress.

In a written reply, Mr Patel said that a majority of the mishaps were reported from Ahmedabad-Mumbai, Ahmedabad-Shamlaji section of National Highway No 8 and that of Ahmedabad-Rajkot ( NH 8. A ) and form the state highway No 27-Ahmedabad-Mehsana.

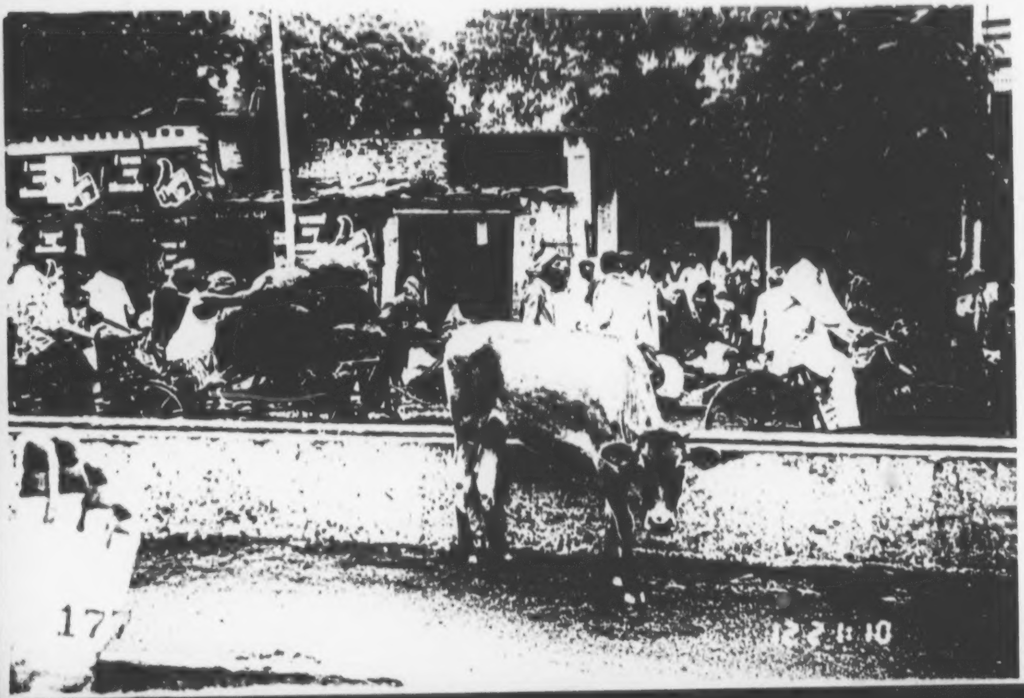
**Murders**

The Chief Minister told Indravijaysinh Jadeja of the BJP that as many as 436 murders were reported in the state between January to April this year.

He said 13 murders were registered from Surendranagar and accused in 11 cases were arrested.

Why do Cows Roam the Streets??

अस्पताल
MANUAL
TYPEWRITER
FACIT
BENGAL TYPEWRITER
AUTHORISED DEALER:
Bengal Typewriter Co.
PEPSI
Supreme
FURNITURE


12 2 1:10

# **Hinduism**

{hin'-doo-izm}

Hinduism, one of the great religions of the world, is the major religion of India, where nearly 85 percent of the population is classified as Hindu. Hinduism has developed over about 4,000 years and has no single founder or creed; rather, it consists of a vast variety of beliefs and practices. Organization is minimal and hierarchy nonexistent. In its diversity, Hinduism hardly fits most Western definitions of religion; rather, it suggests commitment to or respect for an ideal way of life, known as dharma.

## BELIEFS AND PRACTICES

### Caste System

The ideal way of life is sometimes referred to in classical sources and by Hindus as the "duties of one's class and station" (varnasramadharma). The term class (varna) is one of the words connoting the caste system peculiar to India. The ancient texts suggest four great classes, or castes: the Brahmins, or priests; the Ksatriyas, or warriors and rulers; the Vaisyas, or merchants and farmers; and the Sudras, or peasants and laborers. A fifth class, Panchamas, or Untouchables, includes those whose occupations require them to handle unclean objects. It is speculated that the Untouchables were originally assigned such lowly tasks because of their non-Aryan origins. This classification system hardly does justice to the modern complexity of the caste system, however. The classical works on dharma specify distinct duties for different classes, in keeping with the distinct roles each is expected to play in the ideal society.

### Stages of Life

The classical works also outline four ideal stages (asrama), or stations of life, each with its own duties. The first of these is studentship (brahmacarya), from initiation at 5 to 8 years of age until marriage; the second, householdership (grihasthya), when one marries, raises a family, and takes part in society; the third, forest dwelling (vanaprasthya), after one's children have grown; and the fourth, renunciation (samnyasa), when one gives up attachment to all worldly things and seeks spiritual liberation. Besides the duties that are derived from an individual's class and station, general duties (sanatanadharma) are also incumbent on all moral beings. These include honesty, courage, service, faith, self-control, purity, and nonviolence.

These ideal classes and stations encompass males only. The position of women in Hinduism has always been ambiguous; they are, on the one hand, venerated as a symbol of the divine, on the other, treated as inferior beings. Women were traditionally expected to serve their husbands and to have no independent interests. Recent movements within Hinduism, however, such as the Brahmo Samaj, have succeeded in altering this situation.

### Aims of Life

Dharma is only one of the four aims of life (purusartha) distinguished within Hinduism. It is thought of as superior to two others--kama, or enjoyment of desires, and artha, or material prosperity. These three constitute the aims of those in the world (pravritti). The fourth aim is liberation (moksa), the aim of those who renounce the world (nivritti), and this is classically viewed as the supreme end of man.

### Karma and Rebirth

A widespread feature of classical Hinduism is the belief in transmigration of souls, or samsara, the passage of a soul from body to body as determined by the force of one's actions, or karma. The strict karma theory specifies that one's type of birth, length of life, and kinds of experiences are determined by one's previous acts. This is

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modified in popular understanding, but it probably has remained a strong influence on most Hindus throughout history. Liberation is release from this cycle of rebirth. It is typically to be achieved by working out those karmic residues which have already begun to mature, as well as by following certain practices to ensure that no further residues are produced to cause future rebirths. The practices by which one can achieve this are frequently termed yoga, and the theory of liberation is the core of Indian philosophy.

## PHILOSOPHY

Hinduism is usually said to include six philosophical systems. The systems called Nyaya, Vaisheshika, Samkhya, and Yoga emphasize yogic practices coupled with an understanding of basic principles of metaphysics and epistemology. Nyaya, in addition, includes an analysis of logic. The systems called Mimamsa identify the performance of ritual--the Vedic sacrifice, or actions performed in that spirit--as the means to liberation. The many Vedanta systems, taking their inspiration from the Upanishads, tend to emphasize understanding of the relationship between the self (Atman) and ultimate reality (Brahman) as the critical aspect of any path to liberation. Philosophies associated with sectarian movements, such as the bhakti cults, frequently localized in a linguistic or cultural area within the subcontinent, emphasize the path of theistic devotion.

## HINDU DEITIES

– Some have animal forms!!

The two great theistic movements within Hinduism are Vaishnavism, the cult of Vishnu, and Shaivism, the cult of Shiva. Hindu belief, however, usually holds that the universe is populated by a multitude of gods. These gods share to some extent the features of the Godhead but are seen as behaving much as humans do and as being related to each other as humans are. This view is similar to that of the ancient Greeks. For example, the supreme gods Brahma, Vishnu, and Shiva and some of the other gods are often viewed as activated through their relationships with female deities. These female consorts to the deities are called Shakti. Other well-known gods are said to be relatives of a supreme god, such as Ganesha, the elephant-headed god, a son of Shiva and Parvati. Kali, or Durga, the consort of Shiva, is worshiped widely throughout India in the autumn. Hanuman, the monkey-faced god, is depicted in many shrines, and along with Lakshmi, Vishnu's wife, is among the most important deities associated with Vaishnavism. The sets of gods recognized by different sects are by no means mutually exclusive, however.

## FORMS OF WORSHIP

Hindu worship takes many forms. One of the least frequent is the congregational form so familiar in the West. Vedic sacrifices were conducted in any open place properly consecrated. Typical Hindu daily worship (puja) includes a stop at several shrines, a visit to a temple, and home worship. A Hindu may be devoted to several gods: the image of one god, frequently a family deity, is commonly installed in a small shrine in the home; a second god, worshiped at a nearby temple, may be the divinity to which the person's caste is committed; and still another may be the god to whom the individual makes obeisance as his guru (teacher) or his guru's tutor. Because everything is sacred in a Hindu's eyes, almost anything may be considered worthy of devotion; rivers, cowpens, and the retreats of holy men are among the holy places frequented by the devout.

### Home Worship

Home worship typically involves purification of the area through fire, water, and the drawing of symbolic diagrams. Depending on one's class and station, the frequency with which a Hindu is expected to perform the rites, and the role performed in them, will differ. The rites involve offering food, flowers, or incense to the deity, together with appropriate recitations of sacred words or texts. An especially important ritual is known as sraddha, in which Hindu males symbolically support their father, grandfathers, and great-grandfathers in other worlds by offering water and balls of rice; this ritual dates from Vedic times. The worshiper requires the services of a priest on this occasion, as for other life-cycle ceremonies such as birth, initiation, marriage, and death.

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### Temple Worship

The priests also carry out temple worship, although the devotee may participate in the reading of certain hymns or prayers and may give flowers or money to the god directly. The image of a god is believed to be the god, and the cycle of worship in a temple centers on the daily life of the god, involving preparation of the god for worship--waking him up with bells, purifying him with incense, bathing him, dressing him, and feeding him. The worshiper comes to the temple to view (darshana) the god and to receive the food (prasada) that the god has touched. As in the cycle of an ordinary person, special days occur in the cycle of the god of the temple, and on these days special ceremonies are held. These are frequently the times of festivals and may involve elaborate ceremonies: pilgrimages of vast numbers of devotees, processions bearing the god's image throughout the city or countryside, and special music, plays, and dances for the occasion.

### Sacred Cities and Festivals

The seven sacred cities of Hinduism are the following: Varanasi (Benares), Hardwar, Ayodhya, Dwarka, Mathura, Kanchipuram (Conjeeveram), and Ujjain. Other important pilgrimage spots include Madurai, Gaya, Prayaga (Allahabad), Tirupati, and Puri. Each of these places has one or more temples where annual festivals are celebrated that attract large numbers of pilgrims.

Certain festival days are celebrated throughout India on a day fixed according to the Hindu lunisolar calendar. Prominent among these is Dipavali, the "Festival of Lights," occurring in October and November, at which lamps are placed around the house to welcome Lakshmi, the goddess of prosperity. Holi, a spring festival in February or March, is a day of riotous funmaking; this frequently involves temporary suspension of caste and social distinctions, and practical jokes are the order of the day. In the fall (September and October) a ten-day period is set aside to honor the Mother Goddess, culminating in Dashara, the tenth day, a day of processions and celebrations. This festival is extremely important in Bengal, where it is known as Durga Puja.

## HISTORY AND LITERATURE

Scholars sometimes distinguish Vedism, the religion of ancient India based on the Vedas, from Hinduism, although it is difficult to pinpoint a time that demarcates them. The Vedas were hymns of the Aryans, who invaded in the 2d millennium BC.

Vedism stressed hope for a future existence in heaven and lacked the concepts of karma and rebirth; Hinduism characteristically includes karma and rebirth, and the greatest hope is for eventual release from their sway.

The Vedic deities were somewhat different from those which dominate in Hinduism, although scholars have traced the origins of Vishnu and Shiva back to Vedic counterparts. Later Vedism is sometimes called Brahmanism because of the authority accorded the Brahmins, or priests, who performed the ritual Vedic sacrifice. However, the challenge of non-Vedic religions, notably Buddhism and Jainism, led to the replacement of the rigid Brahmanical rules by more relaxed and varied forms of worship.

Although the Vedas continue to be spoken of as the final authority in Hinduism, other texts of equal importance exist. Thus, a literature was developed for each of the four aims of life: various Dharmasastras, such as the Code of Manu, which detail the duties of class and station; Kamasastras, such as the Kamasutras of Vatsyayana, handbooks of pleasure, erotic and otherwise; the Arthasastra, attributed to Kautilya (fl. 300 BC), which, like Machiavelli's The Prince, offers advice to a ruler as to how to keep the throne; and the philosophical literature of the various systems, which deals with liberation and how to achieve it.

In addition, certain collections of tales came to be widely known in popular life, especially the two great epics, the Mahabharata and the Ramayana. The Mahabharata tells of five princes who were cheated out of their kingdom and who, after a period of banishment in the forest, returned to fight a victorious and righteous war to regain it.

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An especially beloved portion of this epic is the section called the Bhagavad Gita, in which Arjuna, one of the brothers, is counseled by his charioteer Krishna, an incarnation of Lord Vishnu. The Ramayana tells the story of the ideal Hindu man, Rama, whose wife Sita is abducted by a demon, and of Rama's journey to Sri Lanka to recapture her. Both epics are filled with didactic tales, edifying poems, and fables. It is probably through their constant retelling in the village that Hinduism is most efficiently disseminated from generation to generation. Another source of Hindu lore is the Puranas, collections of legends and myths.

The period from roughly 500 BC to AD 1000 is sometimes spoken of as that of classical Hinduism. It was during this period that the major literature was composed, the great philosophical systems developed, and the basic Vaishnava and Shaiva sects organized. After 1000, beginning in south India somewhat earlier, a spirit of devotional fervor coupled with social reform swept through India, and the period from that time until near the present is known as the bhakti period. During this time the forms of religious worship changed and diversified further. Singing of devotional songs and poems in the vernacular rather than in Sanskrit, the language in which practically all classical Hindu literature was written, is one example. Direct approach to the god was emphasized, and the mediating role of the priest somewhat curtailed. Love, a sentiment common to all but particularly to the most ordinary villager, is now celebrated as the way to the highest end; some bhakti philosophies hold that liberation is not the supreme goal and that loving service to God is a higher one.

Recent developments in Hinduism are indicative of a movement away from certain aspects of classical practice, such as suttee, a widow's suicide at her husband's funeral; caste distinctions; and even karma and rebirth.

Karl H. Potter

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See also: Asia, history of; India, history of; Indian literature.

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From "India; The World Book Encyclopedia of People and Places.

# Culture

About 83 per cent of India's people practice the Hindu religion, one of the world's oldest living religions. Hindu rules and customs have an important influence on Indian life.

Unlike many other religions, Hinduism was not founded on the teachings of one person. Many different cultural, racial, and religious groups had a role in shaping Hindu philosophy.

## The caste system

A basic part of Hinduism is the *caste* system. Caste is a strict system of social classes. The ancient Aryans, who invaded India about 1500 B.C., used the caste system to limit their contact with Dravidian people who had already settled there.

The Hindu castes are grouped into four main categories, called *varnas*. In order of rank, these varnas are (1) *Brahmans*, the priests and scholars; (2) *Kshatriyas*, the rulers and warriors; (3) *Vaisyas*, the merchants and professionals; and (4) *Sudras*, the laborers and servants.

About 20 per cent of the Indian population are ranked below the lowest Sudra caste. These people are called *untouchables*, and they have traditionally held the lowest jobs.

According to Hindu belief, membership in a caste is established at birth and is difficult, if not impossible, to change. A person's social status in the community depends on the caste to which he or she belongs. Each caste also has a traditional occupation.

There are thousands of castes in the caste system, each with its own rules of behavior. Friendships and marriages rarely occur between members of different castes.

Some people believe that the caste system slows India's progress toward becoming a modern nation. In recent years, however, many caste barriers have broken down. People of different castes work in the same offices and factories and mingle in public places. India's 1950 Constitution gave untouchables equal rights as full citizens.

Even with these changes, few Indians want the caste system to die out completely. They prefer the security of knowing exactly where they belong in society. Also, caste organizations preserve traditional skills from generation to generation and provide help to needy members.

**The Buddhist wallpainting** from which this detail comes was painted in the cave temples of Ajanta, Maharashtra, during the 100's B.C. Although Buddhism was once the chief religion of India, less than 1 per cent of Indians are Buddhists today.

**Amritsar's Golden Temple,** *above*, set in a sacred pool, is the holiest Sikh shrine. Sikhism was founded about 1500. About 14 million Sikhs live in India.

## Hindu worship

Hindu belief and conduct is based on the teachings of Sanskrit literature. *The Vedas* are the oldest Hindu scriptures. These philosophical works existed for centuries and were passed down orally from generation to generation before they were written down.

Many ancient Hindu rituals are still widely observed. Millions of Hindus visit temples along the Ganges River, the most sacred river in India. Hindu temples hold annual festivals to honor events in the lives of their gods and most Hindus have a shrine in their home devoted to a particular god.

Hindus believe that animals as well as human beings have souls. They have reverence for cows, monkeys, and other animals. Although not all Hindus are vegetarians, most will not eat beef.

**Ganesh, the elephant-headed Hindu god,** is featured in this Tamil Nadu temple shrine. Ganesh is universally honored by Hindus as the "remover of obstacles." Hindus worship many *divinities* (gods and goddesses).

* Animal worshipped as a divinity.

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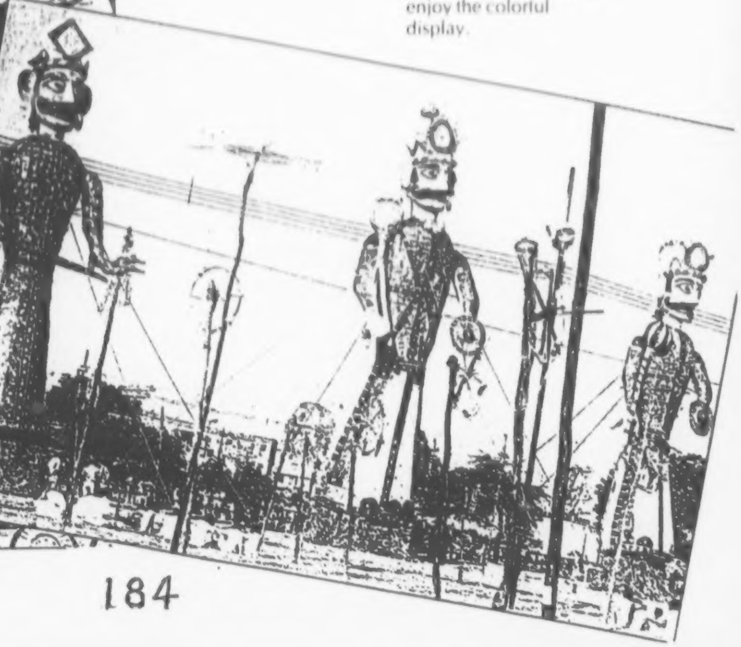
**Hindu reverence for the cow** dates from about 3,500 years ago. The sacredness of the cow is revealed in Hindu scriptures, particularly in the stories of Krishna among the *gopis* (milkmaids) of Brindaban. Krishna is a Hindu god. His conversations with the Pandava warrior Arjuna discuss the meaning and nature of existence in the philosophical work *Bhagavad-Gita*. Reverence for cows is also part of the Hindu philosophy of *ahimsa*, noninjury to living creatures.

## Minority faiths

Most Indians are Hindus. However, Muslims, Christians, and other religious groups also live in India.

About 11 per cent of the Indian population are Muslims, making Islam the second largest religion in India. Most Muslims live in the northern part of the country. Christians make up about 3 per cent of the population. Many live in the state of Kerala and in the areas along India's northeast border.

Sikhs, whose religion is a combination of Hinduism and Islam, make up about 2 per cent of the population. They are mainly wheat farmers in the north. Buddhists and Jains each make up less than 1 per cent of the population.



**The Hindu Dussehra festival,** celebrated here in Delhi, commemorates events in the lives of the divinities. These festivals attract huge crowds of Hindus, who come to worship, to pray, and to enjoy the colorful display.

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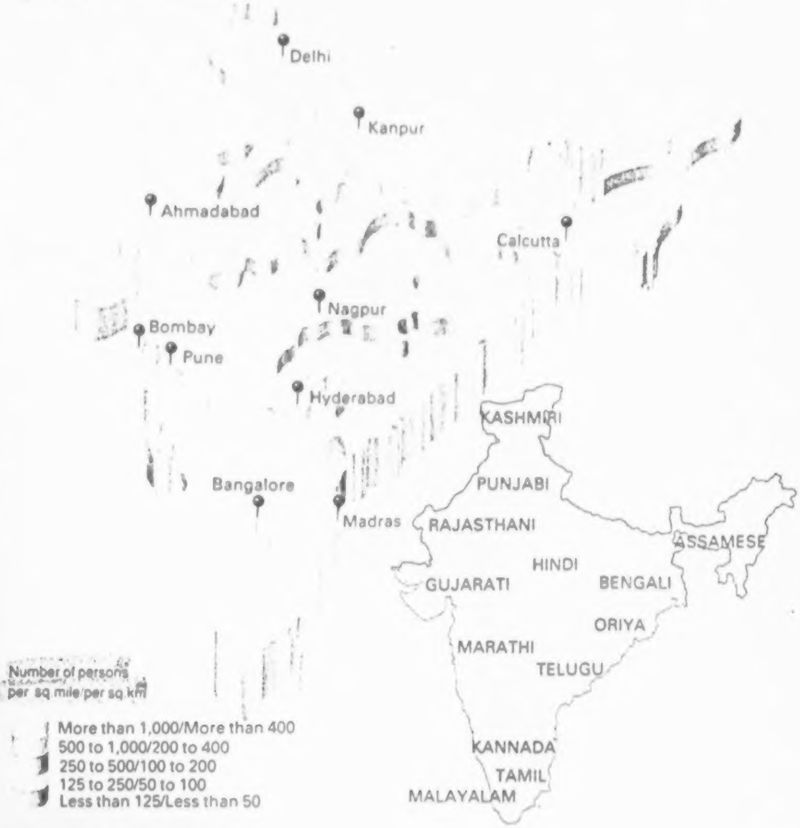
Delhi
Kanpur
Ahmadabad
Calcutta
Nagpur
Bombay
Pune
Hyderabad
Bangalore
Madras
Number of persons per sq mile/per sq km
More than 1,000/More than 400
500 to 1,000/200 to 400
250 to 500/100 to 200
125 to 250/50 to 100
Less than 125/Less than 50
KASHMIRI
PUNJABI
RAJASTHANI
ASSAMESE
HINDI
GUJARATI
BENGALI
ORIYA
MARATHI
TELUGU
KANNADA
TAMIL
MALAYALAM

**Schoolchildren** in the southern seaport of Madras often eat a lunch of traditional vegetarian food. A typical meal consists of grains and spiced vegetables. Most Hindus do not eat beef, and some eat no meat at all.

Millions of people live in slum dwellings. Often, an entire family inhabits a one-room shelter made of scraps of wood or metal. Many others are so poor that they have no home at all and must sleep in the streets.

About 40 per cent of India's population is made up of children aged 14 or under, and schools are overcrowded. Many children must drop out of school to help support their families. Only about a third of India's adults can read and write. Their lack of education limits their job opportunities and, as a result, they continue to live in poverty.

To help control population growth, the government has introduced programs that encourage people to have smaller families.

**This young Rajasthani,** *left,* is a member of the Aryan ethnic group. Most Rajasthanis speak an Indo-European language that comes from Sanskrit.

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nto), Canada, in 1830 and became manager of 's Bank there in 1835. In 1838, he founded a r, the *Examiner*, in Toronto. In 1841, Hincks ed to the first Legislative Assembly of the Prov- anada. He also served as inspector-general in dministrations, including his own.

5, the British government appointed Hincks of Barbados and the Windward Islands. In became governor of British Guiana (now Guy- was knighted in 1869. From 1873 to 1879, he was nt of the City Bank of Montreal. P B Waite

**mith,** *HIHN duh muhth* or *HIHN duh mihth,* 1895-1963), was a German-American composer usic theorist. His compositions are noted for their musical forms of the past, a new approach to harmony, and contrapuntal textures (see **Counter-** Many of his works belong to the neoclassical that emerged after World War I (1914-1918).

ndemith wrote many sonatas for orchestral instru- ts, including such rarely featured instruments as the ble bass, trombone, and tuba. He also wrote concer- for cello, clarinet, organ, piano, and violin, as well as certos for such combinations of instruments as the mpet and the bassoon. Hindemith's other orchestral rks include seven pieces called *Kammermusik* hamber Music, 1922-1927) for various solo instru- ents and small orchestra. Hindemith's opera *Mathis* r *Maler* (1938) explores the role of the artist in society. made the instrumental portions into a symphony 934), which became one of his best-known works. Hindemith explained his system of music theory in *The Craft of Musical Composition* (1937, 1939, revised 1945).

Hindemith was born in Hanau, Germany. He taught at Yale University from 1940 to 1953 and became a United States citizen in 1946. While at Yale, he organized a *collegium musicum*, a group of musicians devoted to performing older music. This group made a significant impact on the revival of interest in early music during the mid-1900's. Daniel T. Politoske

**Hindenburg.** See **Airship** (The Hindenburg; picture).

**Hindenburg,** *HIHN duhn behrg* or *HIHN duhn burk,* **Paul von** (1847-1934), was a German soldier and statesman. He was military leader of Germany during World War I (1914-1918), and he served as president of Germany from 1925 until his death. Hindenburg appointed Adolf Hitler chancellor in 1933, and Hitler became ruler of Germany.

Hindenburg was born in Posen, East Prussia (now Poznań, Poland). He served as a junior officer in Prussian military victories over Austria in 1866 and France in 1870 and 1871. Hindenburg became a general in 1896, and he retired in 1911. When World War I began, Hindenburg came out of retirement to command the German Eighth Army. General Erich Ludendorff became his chief of staff. In the fall of 1914, Hindenburg and Ludendorff won important victories over Russian forces in East Prussia. Hindenburg was promoted to field marshal and became commander in chief on the eastern front. In 1916, he became supreme commander of all German forces and one of the most powerful men in Germany. Ludendorff, whom many historians consider a better strategist, remained Hindenburg's second in command.

Early in 1917, Hindenburg and Ludendorff ordered the Siegfried Line built in northeastern France, to shorten the western front and to ease the strain on Germany's troops. Germany held this line from March 1917 until the Allies broke through at the end of the war in September 1918. The Allies called it the Hindenburg Line. See **World War I** (The final stage).

Culver

Paul von Hindenburg

Hindenburg was elected president of Germany in 1925, and was reelected in 1932. The Great Depression in 1929 caused unemployment and unrest in Germany and led to support for Hitler's Nazi Party. Hindenburg used his presidential power to keep Hitler out of power. But in the elections of 1932, the Nazi Party showed that it had become the strongest party in Germany. Hitler claimed the support of a majority of parliament. The aged and tiring Hindenburg finally appointed Hitler chancellor on Jan. 30, 1933. After Hindenburg died in 1934, Hitler abolished the presidency and assumed its powers. George G. Windell

See also **Hitler, Adolf** (Rise of the Nazis; picture).

**Hindenburg Line.** See **Siegfried Line.**

**Hindi,** *HIHN dee,* is one of the official languages of India. More Indians speak Hindi than any other language. In a broader sense, the word *Hindi* refers to a group of languages spoken in north central India. Modern Hindi developed from a dialect called Khari Boli but includes elements of Sanskrit, an ancient Indian language. During the 1800's, when the British controlled much of India, they encouraged the Indians to systematize Hindi. Today, the Indian government promotes Hindi as a national language. Frank E. Reynolds

See also **India** (Languages); **Alphabet** (picture: Some important alphabets).

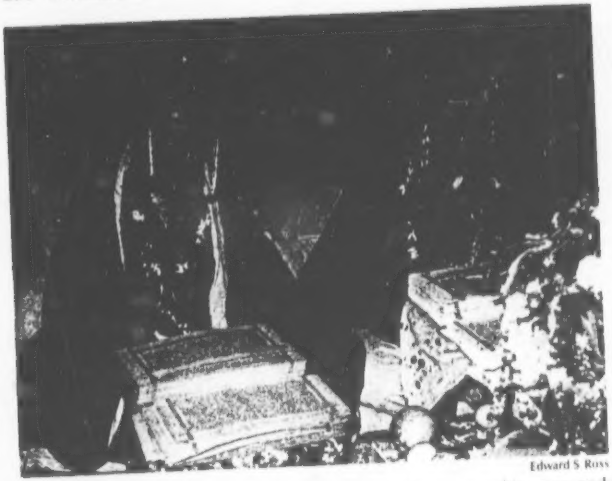
**Hindu-Arabic numerals.** See **Arabic numerals; Numeration systems** (History).

**Hindu Kush,** *HIHN doo KUSH,* is a chain of mountains in Central Asia. For location, see **Afghanistan** (map). The name *kush* means death. It was probably given to the mountains because of their dangerous passes. The Hindu Kush were called the Caucasus by historians of Alexander the Great. The mountains are a westward continuation of a region called the Pamirs (see **Pamirs**).

For 500 miles (800 kilometers), the Hindu Kush form a great *watershed,* or water divide, between the Indus and Amu Darya rivers. They are part of the boundary between eastern Afghanistan and northwestern Pakistan. The highest peak in the range is Tirich Mir (25,230 feet, or 7,690 meters). Tamerlane, a Mongol leader who lived in the 1300's and early 1400's, reportedly tried to cross these mountains. Riffat Sardar

**Hinduism,** the major religion of India, is one of the oldest living religions in the world. The roots of Hinduism date to prehistoric times in India. Although most Hindus live in India, Hindu literature and philosophy have influenced people throughout the world.

Through the centuries, Hinduism has been the most important influence on the culture of India. For example, the caste system of India is a basic part of Hinduism. The



Edward S. Ross

© Alok Kavan, Photo Researchers

**Hinduism** has numerous sacred writings, and its believers worship many gods and goddesses. The priests shown at the left are reading from the Rigveda, the oldest sacred book in Hinduism. At the right, Hindus are praying before an image of the many-armed goddess known as Durga or Kali. This divinity is the wife of the god Shiva. She is worshiped as the feared goddess of destruction.

caste system determines the way of life of most Hindus, including what occupations they enter.

### Beliefs of Hinduism

Hinduism developed gradually over thousands of years, and many cultures and religions helped shape it. Many *sects* (groups) arose within Hinduism, and each developed its own philosophy and form of worship. Like most religions, Hinduism has basic beliefs about divinities, life after death, and personal conduct.

**Sacred writings.** Hinduism has no single book that is the source of its doctrines. But it has many sacred writings, all of which have contributed to its fundamental beliefs. The most important include the *Vedas*, the *Puranas*, the *Ramayana*, the *Mahabharata* with its section called the *Bhagavad-Gita*, and the *Manu Smriti*.

***The Vedas*** are the oldest Hindu scriptures and are older than the sacred writings of any other major religion. The teachings of the *Vedas* existed for centuries before they were finally written down. There are four *Vedas*—the *Rigveda*, the *Samaveda*, the *Yajurveda*, and the *Atharvaveda*. Each has four parts—the *Samhitas*, the *Brahmanas*, the *Aranyakas*, and the *Upanishads*. The *Samhitas* contain prayers and hymns and are the oldest part. The *Brahmanas* deal with ritual and theology and include explanations of the *Samhitas*. The *Aranyakas* and the *Upanishads* are works of mysticism and philosophy written as dialogues.

***The Puranas*** are long verse stories that contain many important Hindu myths about Hindu gods and goddesses and the lives of great Hindu heroes. They also describe the Hindu beliefs about how the world began and how it periodically ends and is reborn.

***The Ramayana and the Mahabharata*** are long epics. The *Ramayana* tells of Prince Rama and his attempts to rescue Sita, who has been kidnapped by the demon king Ravana. The *Mahabharata* describes a conflict between the Pandavas and the Kauravas, two families who are cousins. Generally, the Pandavas are considered to be morally and ethically superior to the Kauravas.

***The Bhagavad-Gita***, a philosophical work, forms part of the *Mahabharata*. In it, the god Krishna and the Pandava warrior Arjuna discuss the meaning and nature of existence.

***The Manu Smriti*** (*Code of Manu*) is a basic source of Hindu religious and social law. Part of it sets forth the b sis of the caste system.

**Divinities.** Hinduism is *polytheistic*. That is, Hindus worship many gods. Early Hindus worshiped gods that represented powers in nature, such as rain and the sun. Gradually, some Hindus came to believe that, though d vinities appear in separate forms, these forms are part one universal spirit called *Brahman*. These Hindus believe that many divinities make up Brahman. The most important ones are Brahma, the creator of the univer Vishnu, its preserver; and Shiva, its destroyer.

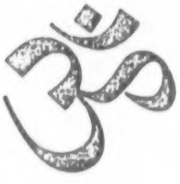
One of the most important Hindu divinities is Shiva wife, who has several names. She is best known as D ga, Kali, Parvati, or Uma. As Parvati or Uma, she is the beloved goddess of motherhood. As Durga or Kali, sh is the feared goddess of destruction. For many Hindu these contrasting natures of the goddess represent t way in which time and matter constantly move from birth to death and from creation to destruction. Many Hindus find great religious truth in this symbolism a worship the goddess as their most important divin

According to Hindu doctrine, animals as well as h man beings have souls. Hindus worship some gods the form of animals. Cows are sacred, but Hindus a revere monkeys, snakes, and other animals.

**The six schools of philosophy.** Many schools o du thought have developed through the centuries these schools have become especially prominent their traditional order, they are (1) *nyaya*, (2) *vaish* *sankhya*, (4) *yoga*, (5) *purva-mimamsa*, and (6) *ved*

Nyaya deals with logic. Vaisheska concerns the

rld. Sankhya ex-
e origin and evo-
the universe. Yoga
of mental and phys-
cises designed to
soul from reliance
body so that the
unite with Brah-
va-mimamsa cate-
Vedic texts and rit-
danta interprets
lly the *Upanishads,*
*hagavad-Gita,* and the
*Sutra.*
ste is India's strict
m of social classes.
caste system may have
d in some form before Aryan invaders from central
attacked India about 1500 B.C. The Aryans or their
cendants gradually gained control of most of India.
y used the caste system at first to limit contact be-
een themselves and the native Indian people. Later,
e caste system became more elaborate and one of the
chings of Hinduism. The Hindu castes are grouped
o four main categories, called *varnas.* In order of
nk, these hereditary groups are (1) *Brahmans,* the
ests and scholars; (2) *Kshatriyas,* the rulers and war-
iors; (3) *Vaisyas,* the merchants and professionals; and
) *Sudras,* the laborers and servants. The caste system
includes thousands of castes, each of which has its own
rules of behavior.



**The sacred word *om*** is repeated many times by a Hindu while meditating. The written form of the word in the Sanskrit language of India, *above,* is a symbol of Hinduism.

For centuries, one large group, the *untouchables,* has existed outside the four varnas and has ranked below the lowest Sudra caste. The untouchables traditionally have had such occupations as tanning, which Hindu law forbids for a member of any caste in the four varnas. The Indian constitution of 1950 outlawed untouchability and gave the group full citizenship. But discrimination against untouchables has not been eliminated.

Through the years, the caste system has weakened somewhat, but continues to be a strong influence in Indian life. Some social distinctions have been abandoned, especially in the cities. Many educated Hindus of different castes intermix and work with one another. Formerly, they would have dined with and would have married only members of their own caste.

**Reincarnation and karma.** Hinduism teaches that the soul never dies. When the body dies, the soul is reborn. This continuous process of rebirth is called *reincarnation.* The soul may be reborn in an animal or in a human, but Hindu doctrine is not clear on this point.

The law of *karma* states that every action influences how the soul will be born in the next reincarnation. If a person lives a good life, the soul will be born into a higher state, perhaps into the body of a brahman. If a person leads an evil life, the soul will be born into a lower state, perhaps into the body of a worm. A person's reincarnation continues until he or she achieves spiritual perfection. The soul then enters a new level of existence, called *moksha,* from which it never returns.

### Hindu worship

**Worship in temples.** Hinduism considers temples as buildings dedicated to divinities. Its followers worship as individuals, not as congregations. Most Hindu temples have many shrines, each of which is devoted to a divinity. Each temple also has one principal shrine devoted to a single important god or goddess.

The shrines portray the divinities in sculptured images. Hindus treat these images as living human beings. Every day, for example, priests wash and dress the images and bring them food. Hindus do not consider this custom idol worship. They believe the divinities are actually present in the images.

Hindu temples hold annual festivals commemorating events in the lives of the divinities. Huge crowds gather for these festivals. They come to worship, to pray for assistance, and to enjoy the pageantry of the event. Millions of Hindus visit temples along the Ganges River, the most sacred river in India.

**Worship in the home.** Many observances of Hinduism take place in the home. Most homes have a shrine devoted to a divinity chosen by the family. In most homes, the husband or wife conducts the daily family worship. A number of important religious ceremonies are performed at home, including the one in which boys officially become members of the Hindu community. Other religious ceremonies include marriage ceremonies and rituals that are connected with pregnancy and childbirth.

**Worship of saints.** Hindus worship both living and dead men as saints. Some saints may be *yogis* (men who practice yoga), and others may be *gurus* (spiritual teachers). Hinduism has many local and regional saints, rather than official saints for all its followers. A Hindu village, tribe, or religious order may elevate its own heroes or protectors to sainthood. Many Hindu monks and nuns have joined together in religious orders under the leadership of a saint.

Charles S. J. White

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Juggernaut
Karma
Mahabharata
Manu
Ramayana
Religion (picture)
Shiva
Suttee
Upanishads
Vedas
Vishnu
Yoga

See also *Hinduism* in the Research Guide/Index, Volume 22, for a *Reading and Study Guide.*

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**Hines, Earl** (1903-1983), also called "Fatha" Hines, was an outstanding American jazz pianist and bandleader. His method of piano playing was often called *trumpet style,* because its frequent use of single note phrases and *arpeggios* (fast successions of notes in a chord) resembled the style of jazz brass players.

Earl Kenneth Hines was born in Duquesne, Pa. He initially studied trumpet but switched to the piano. Hines was first taught piano by his stepmother. He then studied with various teachers in Pittsburgh.

Hines began his professional music career as an ac-

Cultural ecologists help explain how some apparently irrational customs, such as the prohibition on eating beef in India, a country in which some people starve, makes sense as an adaptation to long-run variation in the environment. (Serena Nanda)

ways of economic and political organization, settlement patterns, social groupings, religious beliefs and practices, values, and so on. From this perspective, the term **sociocultural system** seems better than *culture*, because the term *sociocultural system* includes the real-life expression of designs for living in particular environments, not just the designs.

In emphasizing the adaptive nature of different aspects of a sociocultural system, cultural ecologists and cultural materialists, such as Marvin Harris, have been able to show that beliefs and practices that seem quite irrational to outsiders may still result in rational utilization of the environment, given a particular level of technology. For example, the Hindu taboo on eating beef despite widespread poverty and periodic famine in India seems ridiculous to Westerners. Yet, according to Marvin Harris (1966), it does make sense as an adaptation. Cows are important in India not because they can be eaten but because they provide dung for fertilizer and bullocks, the draft animals that pull plows and carts and that are essential for agriculture. If a family were to eat its cows during a famine, it would deprive itself of the source of bullocks and could not continue farming. The religious taboo on eating beef strengthens the ability of the society to maintain itself in the long run.

The focus on the adaptive nature of sociocultural systems, rather than the ways in which such systems are transformed over time, has led to the criticism that cultural ecology is just another form of functionalism. Ecological anthropologists do recognize that adaptation is an ongoing process and the primary means by which we adjust to and cope with our environ-

From Cultural Anthropology by Serena Nanda.

From: Cultural Anthropology by Serena Nanda.

behavior, such as going on a pilgrimage or building a temple, if the gods will grant a particular wish. Other forms of prayer are less familiar to the Westerner. In some cultures, gods can be lied to, commanded, or ridiculed. Among the many Northwest Coast tribes of North America, the insulting tone used to one's political rivals was also used to the gods. In these ranked societies, the greatest insult was to call a man a slave; when calamities fell or their prayers were not answered, people would vent their anger against the gods by saying, "You are a great slave" (Benedict 1961:221).

Making offerings and sacrifices to supernatural beings is also a widespread religious practice. Sometimes these offerings consist of the first fruits of a harvest—grain, fish, or game. Sometimes the offering of food is in the form of a meal for the gods; among the Hindus, the gods are given food that they eat behind a curtain. After the gods have eaten, this food is distributed among the worshippers.

In some societies, animals or humans may be sacrificed as an offering to the gods. Among cattle pastoralists of East Africa, such as the Nuer and the Pokot, cattle sacrifices are an important part of religious practices. The essence of the East African "cattle complex" is that cattle are killed and eaten only in a ritual and religious context, which seems to be an inefficient use of resources. This ritual use of cattle in sacrifice has always been of interest to anthropologists, and at one time it was given as a common example of how religious practices interfere with rational exploitation of the environment. More recent research has shown, however, that the sacrifice of cattle in a ritual context may be quite adaptive. Cattle sacrifices are offered in community feasts that occur on a fairly regular schedule, averaging out to once a week in any particular neighborhood. The feasts are thus an important source of meat in the diet. Furthermore, the religious taboo that an individual who eats ritually slaughtered meat may not take milk on the same day has the effect of making milk more available to those who have no meat, or conserving milk, which can be consumed as sour milk on the following day. In addition, the Pokot prefer fresh meat, which is also healthier than meat that is not fresh. Because one family could not consume a whole steer by itself, the problem of how to utilize beef most efficiently without refrigeration techniques is solved by offering it to the community in a ceremonial setting. In this way, meat can be shared without fighting over the supply, because the portions are distributed according to age and sex by a rigid formula (Schneider 1973).

In cultures where animal sacrifice occurs, only certain animals are considered appropriate offerings. Among the Nuer, for example, only animals that have been neutered, particularly oxen, are used in religious ritual. In sacrificing an ox, a parallel is being made between symbolic and social categories. Among the Nuer, certain problems involve the restraint of sexuality and the role of women. The ideal norms of Nuer society require loyalty of brothers to the patrilineage. In reality, however, it is the brothers by the same mother who are most loyal to one another and may be in competition with

Offerings to the gods are frequently used to gain their helpful intervention in human affairs. Here a Ponapean pounds the root for making kava, a ceremonial drink that is offered to the deities. (Raymond Kennedy)

**New Delhi Journal**

# Sacred Cows Are Wily Too; Just Try Catching One

By BARRY BEARAK

NEW DELHI, Oct. 19 — It takes eight men to capture a street-smart cow, so the municipal cow catchers of New Delhi must squeeze together tightly in the cab of their cattle truck. There are two parts to their important job and only one is easy: finding the cows. Getting the beasts into the truck is where these workers really earn their $119 a month.

It is estimated that 40,000 cows wander the streets of this city, and most seem well informed of their sacred status. They are a study in nonchalance, slowly crossing a highway or, as many prefer, relaxing in the right-turn lane of a busy intersection.

The 100 or so cow catchers employed by the city have always thought their occupation a merciful one, saving sanctified creatures from a run-in with a front bumper.

"It is necessary if misunderstood work," said Raman Kumar Sharma, a crew chief. "Sometimes people do not realize we have the cow's best interests at heart. We've had violence with the crowds."

But these days, their mission has taken on added urgency because the urban cow has encountered a vicious new enemy: the plastic garbage bag. With little grass to graze on in the paved cityscape, cows scavenge through trash that is increasingly packed into polyethylene.

New Delhi's animal rights groups have recently begun campaigns against the lethal packaging. Table scraps may be fine fodder, they say, but the plastic wrapping is not digestible in any of the cows' four famous stomachs. They want use of the garbage bags banned, though as yet this appears unlikely. In modern India, the utility of the garbage bag may be a force beyond even the spirituality of the cow.

"Inside the cows we find glass, iron, wire, electrical cords, shoes, shirts and razor blades, but the real killer is the plastic," said Dr. Vijay Chaudry, a veterinarian who runs a refuge where the cow catchers deliver the caught cows. "We lose two or three cows a day, and when we cut them open it is terrible what we find. For an animal so sacred, they die a bad death."

Cows are as common to big-city India as bright lights are to Broadway, and revered though they may be, most live the life of vagrants. They are either unwanted animals, turned out because they are old and dry, or milk producers belonging to city dwellers who do not feed them.

Barry Bearak/The New York Times

New Delhi employs 100 or so cow catchers and their job isn't easy. Civil disobedience paid off for this cow: she kept going limp when a team of catchers got her on the ramp leading to the truck. Eventually they gave up.

Plastic garbage bags make for a deadly diet.

"Cows that are still productive belong to people who think, 'Why should I feed this cow, when the cow can feed itself?' " said Mr. Sharma, 36, a bureaucrat whose official title is milk tax inspector. "These owners sometimes chase us when we take their cows.

"I tell you, there are many difficulties to this work. Old cows are tired and sick, and these are easy to catch. Young, healthy cows, well, this is something else. The cow is quick. The cow is intelligent. The cow has learned to recognize our truck."

Hindus venerate the cow as a symbol of motherhood and a giver of life. It is certainly the mainstay of rural India, providing milk and pulling carts. Dried cow dung is the slow-burning cooking fuel favored by most village households. It also makes a good hard floor.

Cow slaughter — sometimes a volatile, violence-provoking issue here — is banned in most of India's 27 states, though there is no shortage of juicy steaks for those who can afford them. Beef is sold on the black market, and butchers casually deliver their prime cuts door to door.

This not-so-surreptitious killing is rarely discussed in a nation where the hallowed cow seems quaintly familiar on boulevards that are otherwise overpopulated with smoke-belching rattletraps.

For the cow catcher, the animal's high approval rating is a problem. As a crowd gathers, more people are always rooting for the cow than the catcher. There is little use in talking to spectators about plastic bags and clogged digestive tracts.

"Why don't you quit torturing the poor animal!" a man called out as Mr. Sharma's crew took on its toughest challenge of the day, a horned, formidable-looking white brute.

Stealth is the cow catcher's principal tactic. Once a rope has been slipped onto the animal's head, the techniques of the rodeo cowboy usually work — the headlock, the twisting, the tugging.

"If you grab the ears and put your hand in its mouth, the cow won't run," said Aji Ram, at 60 the most veteran of the crew. "Then someone's got to hold on to the tail."

When the catchers sneaked up on her, the big white cow had been enjoying the garbage beside a vegetable stand along busy Okhala Road. Another, more alert animal had just bolted away, recognizing the green rust bucket that serves as the cow catcher's truck. She then agilely ran up a steep slope, eventually taking sanctuary in a taxi stand.

The white cow, however, had carelessly allowed herself to be roped and there was little else for her do but use Gandhian tactics of civil disobedience. Whenever the catchers shoved her near the ramp of their truck, the beast went limp. If they wanted her so badly, they would have to carry her.

For 45 minutes, the catchers used all their wiles. When these failed, they used their poles, slipping the wooden prods under the animal and hitting her belly. At the same time, Aji Ram pulled the tail. Suresh Chand pushed the flank. Radha Krishna slapped the butt.

Mr. Sharma himself, dressed in a well-pressed blue shirt, never touched the cow, but he did survey the crowd, which was ready to declare the animal the winner. "I don't think we catch this cow," Mr.

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outskirts and set free in a gosadan, a sort of a shelter for homeless cows.

There, they could chew their cuds in relative tranquillity, and while their diet may neither be as varied or as tasty as human garbage, it would again be plastic-free.

## Hospitality in Indian Homes

Indians are known for their hospitality; which is both generous and sincere. You will often find Indians extremely friendly, eager to be helpful and curious. Except in modern Indian homes, it is not customary to invite others to casual meals. If friends want to entertain, they may invite you to a restaurant instead. Visits to homes however are welcome. Care must be taken neither to offend nor to impose on generous hosts. You may try eating with your hands in the Indian fashion. Indians use only the right hand for eating.

The social use of alcoholic beverages in India is not common except among westernized Indians. You are obligated neither to offer nor accept alcoholic drinks in Indian society. Indians are however tolerant if you choose to drink. Intoxication will not be tolerated.

Ascertain when inviting an Indian guest for a meal whether he and his wife are vegetarian or non-vegetarian. Vegetarian means no meat, fish, or fowl - only vegetables. Some vegetarians eat no eggs (not even in pudding or baked food). Non-vegetarian means meat, fish, fowl and eggs. Muslims do not eat pork; Hindus do not eat beef.

# Beef

Since many Indians are vegetarian, cows are not farmed for beef in India. They also have a religious significance, so beef is not as popular as other meats in Indian cuisine. It is used by the Muslim community. The cow is considered by Hindus as a 'mother' because when a mother cannot feed a baby for any reason, then cow's milk is used. However, there are some interesting beef recipes, and you can also adapt some traditional lamb recipes, if you choose.

Serves 4

## Marinated Beef

300 ml/½ pt/1¼ cups natural (plain) yoghurt • 2.5 cm/1 in ginger root, minced
4 cloves garlic, crushed • 5 ml/1 tsp ground cumin
5 ml/1 tsp ground cardamom • 5 ml/1 tsp ground cloves
30 ml/2 tbsp chopped fresh coriander (cilantro) • salt
450 g/1 lb beef, cubed • 45 ml/3 tbsp oil • 2 cloves
2 onions, sliced • 2 green chillies, chopped
pinch of ground cinnamon • 5 ml/1 tsp dried fenugreek leaves
250 ml/8 fl oz/1 cup water

Mix the yoghurt with the ginger, garlic, cumin, cardamom, cloves, coriander and salt, spread over the meat and leave to marinate overnight.

Heat the oil and fry the cloves until they darken. Add the onions and fry until golden. Add the chillies, cinnamon and fenugreek and fry for a few seconds. Add the meat, marinade and water, cover and simmer for about 1½ hours until the meat is tender.

Serves

## Aniseed Beef

300 ml/½ pt/1¼ cups natural (plain) yoghurt • 2.5 cm/1 in ginger root, ground
5 cloves garlic, crushed • 5 ml/1 tsp ground cardamom
5 ml/1 tsp ground cinnamon • 2 cloves, ground
450 g/1 lb beef, cubed • 45 ml/3 tbsp oil • 3 large onions, sliced
5 ml/1 tsp ground coriander (cilantro) • 5 ml/1 tsp ground anise
2.5 ml/½ tsp ground turmeric • salt and pepper
15 ml/1 tbsp chopped fresh coriander (cilantro)

Mix 15 ml/1 tbsp of the yoghurt with the ginger, garlic, cardamom, cinnamon and cloves, rub into the meat and leave to marinate for 2 hours.

Heat the oil and fry the onions until golden. Remove from the pan and set aside. Add the meat and fry until lightly browned on all sides. Mix all the remaining ingredients except the fresh coriander into the remaining yoghurt and add to the meat. Cover and simmer gently for about 1 hour until the meat is tender. Garnish with coriander and serve hot with rice and a vegetable dish.

From Groliers Interactive (Computer) encyclopedia.

## Islam

{is'-lahm}

Islam is a major world religion, the second largest (after Christianity). Its approximately one billion adherents, called Muslims (or Moslems), comprise about one-fifth of the Earth's population. The Muslim world extends from the Philippines in the east to Morocco in the west, and from Central Asia in the north to sub-Saharan Africa in the south. Significant Muslim minorities also exist in China, Russia, South Africa, Australia, Europe, and the Americas. Islam was first proclaimed by the Prophet Muhammad in Arabia in the 7th century. The Arabic word Islam literally means both "surrender" and "peace"--surrender to the will of God and the peace that is entailed in that surrender. Islam is a monotheistic religion (see monotheism); like Judaism and Christianity, it traces its origins to the biblical patriarch Abraham.

Islam has found expression in diverse cultures. The most important Islamic cultural zones are the Arab, Persian (Iranian), Turkic, South Asian, Malay, and African. Other smaller or more recent culture areas such as the African American and Chinese are also significant. The Arabs are associated with the rise of Islam, Arabic is Islam's sacred language, and the Arab countries of the Middle East have had a strong influence on the development of Islamic civilization. The majority of Muslims, however, are not Arabs. The country with the largest Muslim population today is Indonesia, and the most populous Islamic cultural zone is South Asia, comprising India, Pakistan, and Bangladesh.

Muslims are divided into different schools of thought, some of which are distinctive enough to be called sects. The most fundamental division is between the Sunnites and the Shiites. The Sunnites (or Sunnis) are by far the largest group, constituting about 90 percent of all Muslims. Shiites, however, have played an important role in Islamic history. Most Shiites live in the heartland of the Middle East: in Iran, Iraq, Lebanon, Syria, Saudi Arabia, Yemen, and the Persian Gulf states. Sizable Shiite minorities also live in Pakistan, Afghanistan, India, and Tajikistan. Shiite Islam is itself divided into different sects, the most important of which are the Twelvers (or Imamis) and the Ismailis. These divisions were the results of disputes over the sources of religious and political authority in the Islamic community. The Sunnites are not divided along sectarian lines, but into different legal traditions.

### The Foundations of Islam

The sources of the Islamic faith are the Koran, or Qur'an (Arabic for "the reading"), which is the holy book of Islam, and the Prophetic Traditions (the sunna). According to Muslim belief, the Koran is the word of God that was revealed to Muhammad by the Archangel Gabriel and was recorded by the companions of the Prophet. In later years these renditions were canonized. Muhammad was illiterate, incapable of achieving the Koran's sophisticated prose and literary style. The Koran is therefore the miracle of Muhammad, whose illiteracy serves the same function in Islam as the virginity of Mary does in Christianity--that of the untainted vessel for the revelation of divine truth. The Koran consists of 114 chapters (suras) that were revealed to the Prophet over a period of time. They cover a variety of issues, including ethics, history, theology, and religious obligations. The Koran contains the fundamental teachings of the faith, and is the foundation of all other expressions of Islam in both the temporal and spiritual realms. Muslims hold it in the highest esteem. Not only are its contents of central concern to their piety, but reading the Koran is itself an act of religious significance. It is generally read in the original Arabic to preserve the sacredness that is interwoven with its literary style, and to remain true to the nuances and levels of meaning that would be lost in a translation. Over the centuries, commentaries on the Koran became an important aspect of Islamic religious scholarship. Varying methods of interpreting its texts formed the basis for different schools of Islamic thought. The text itself, however, has remained inviolate.

After the Koran, the Prophetic Traditions are the most important foundation of Islam. For Muslims, Muhammad is the messenger of God. He is also the most perfect of God's creatures, best suited to carry his message to

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humankind. Love for the Prophet lies at the heart of the Islamic faith, inseparable from the word of God that constitutes the essence of Islam. The example of the Prophet has thus conditioned the practice of the faith. Muslims emulate the example of the Prophet in every facet of their religious, social, and personal lives. His public and private conduct serves as a model for every Muslim. For this reason, great care has been taken to preserve the memory of his words (ahadith, sing. hadith) and deeds.

Muhammad was a member of the powerful Quraysh tribe of Mecca at a time when the city was the center of trade in the Arabian peninsula and of the idolatrous religion of the Arabian tribes. He lost both of his parents while very young, and was raised by an uncle. In his youth he worked as a trader, traveling with caravans to Syria. At the age of 25 he married a wealthy widow, Kadijah, who was 15 years older than he was. This marriage produced the Prophet's only child, his daughter Fatima. Muhammad was held in great respect by his compatriots; known as al-Amin (the trustworthy), he often arbitrated quarrels between individuals and tribes.

When he was 40 the angel Gabriel appeared to him in a cave outside Mecca, beginning the revelation of the Koran. Muhammad's prophetic mission initially attracted only a small group of dedicated followers. The Meccan elite were alarmed by his monotheism and his call for the destruction of all idols. They opposed him, harassed his followers, and plotted to kill him. In 622 he was invited by the people of Yathrib (later renamed Medina) to move to that city and settle the disputes that had paralyzed it. With this move, called the Hegira, the Muslim calendar begins.

In Yathrib the Muslim community was formed and grew in strength. Islam became the religion of Yathrib, and the city's religious, social, economic, and political life was organized according to Islamic teachings. At the same time Muhammad continued to receive revelation, much of it now concerning the social life of the community. From Yathrib, Islam began to spread and soon came into conflict with Mecca. The Meccans were defeated in a series of battles, and the city surrendered to Muhammad in 630. From then on Islam spread rapidly throughout Arabia. Tribes were converted, and military campaigns and marriage pacts forged a united Islamic society. Muhammad died in 632 and was buried in Medina.

From the time of Muhammad's arrival in Yathrib he was both a prophet and the religious and political leader of his community. Their mediator with God, he was also a temporal ruler, the executor of the law, and a military commander. As a result, the spiritual function of prophecy in Islam is closely linked to its sociopolitical dimension. Muhammad has been not only a model for Muslim piety, but also for social and political action. His example therefore informs every aspect of Muslim life, and conversely, every aspect of human life must live up to the standards set by him.

## Islamic Beliefs

The most basic Islamic doctrine is that of the Oneness of God (al-tawhid). In Islam, God (Allah) is the supreme reality--both the absolute and the infinite. Islam has 99 names for God, names like the Most Merciful, the Most Just, and the Most Patient--each capturing his absolute and infinite essence. God is also the beginning and the end: every aspect of existence is present in him. He is the creator and the lawgiver. He is a supernatural reality and does not possess an earthly manifestation. Muslims believe that God cannot be represented in any worldly form. This has discouraged the representational arts in Islam.

Another key doctrine is that of prophecy (nubuwwah). Muslims believe that prophecy lies at the heart of human history, beginning with Adam as the first prophet and ending with Muhammad as the last. Over the course of history, prophets have been sent to every people. All of these have spoken of God; a few have been Messengers of God, bearing divine revelation (wahy).

Al-tawhid and nubuwwah are complemented by the Islamic view of man. In Islam, man is the servant of God (al-abd). By surrendering (islam) to the will of God he finds salvation and worldly peace. Man is also the most important of God's creatures, his viceregent (kalifah) on Earth. As such man's actions possess broader

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dimensions than his own concerns. As God's viceregent man has great responsibilities to fulfill. Men and women stand above the other creatures of God in that they alone can choose to surrender to God's will. The choice is a facet of man's fall from heaven. Viceregency means that human beings possess the primordial nature that predated their expulsion from paradise, but their salvation lies in following the path set before them by God.

## The Sharia and Islamic Law

The Sharia is the divine law in Islam. It encompasses every aspect of Muslim private life, social transactions, piety, and rituals. Muslims view the Sharia as a guide by which to live, and, more importantly, as the will of God. A Muslim is a Muslim by virtue of following the Sharia, which informs every area of Muslim life from birth to death with Islamic values. As such, it integrates mundane activities with concern for the sacred and creates a temporal order conducive to the pursuit of spiritual concerns and salvation. The Sharia provides guidance for Muslim conduct in every situation. In so doing it divides all acts into five categories: obligatory, recommended, reprehensible, forbidden, and neutral or permitted.

The Sharia is rooted in the Koran, the Prophet's sayings (hadith), and traditions (sunna), argument from the consensus of the Muslim community (ijma) and argument from analogy (qiyas). All Muslims agree that these constitute the sources of Islamic law, but differ on their application. These differences have led to the emergence of four schools of Islamic law within the Sunnite community: The Shafiite (Egypt, Malaysia, and Indonesia), the Hanafite (South Asia), the Malikite (North Africa), and the Hanbalite (Saudi Arabia). Each is named for a legal scholar associated with its origins. In earlier times Muslim jurists used a principle called ijtihad, which means independent reasoning based on the above sources of law in order to deal with a novel situation. Among Sunnites ijtihad is no longer recognized, but Shiites still practice it. Over the centuries the legal skills required for interpreting and applying the law have led to the development of a class of experts known as fuqaha (jurists), and more generally as ulama (scholars).

## The Pillars of the Faith

The basic duties of Muslims--the "pillars of Islam"--were revealed in the Koran, and the exact manner of their execution was laid down by the Prophet. They are: prescribed prayers (salat) performed five times each day; **fasting (sawm) during the month of Ramadan between dawn and dusk**; the pilgrimage to Mecca (hajj), to be performed at least once in a lifetime for those who have the means to do it; and the payment of a religious tax (zakat) intended for the poor or works of piety. Some also include "striving in the path of God" (jihad), which is of two kinds: the greater jihad, which is striving against one's soul in attaining spirituality; and the lesser jihad--defending Muslims against outside aggression.

These duties have both personal and public dimensions. Prayers, for example, may be performed at home or in a mosque (a place of public worship). Among Sunnites congregational prayers have an important religious and communal role. Each of these duties, moreover, entails many more practices. The hajj involves elaborate rituals, and the Ramadan fast is accompanied by special prayers. Shiites have additional religious taxes and other practices that are peculiar to them; they also perform the basic pillars of the faith according to their own laws.

## Sufism

Islam also has an esoteric or mystical dimension generally known as Sufism. The mystical path in Islam is rooted in the fundamental teachings of the faith, but it aims at attaining the Divine Reality in this life. Sufism goes beyond performing the duties prescribed by the Islamic faith to seek direct knowledge of God through Islamic teachings. The Sufi path (tariqa) is concerned with the nature of the Divine Reality, how it can be attained, and how to purify the human soul from all imperfections so that it can reflect the Divine Reality.

The life of a Sufi is modeled after the life of the Prophet, and the virtues for which Sufis strive are manifested in the life of the Prophet. Moreover, Sufis believe that the esoteric doctrines of Islam were revealed to the Prophet,

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# Pork

**There are few Indian dishes that use pork as it is not eaten by Muslims. However, there are a few pork recipes, such as Goan Portuguese-style Spicy Pork, which was introduced by Portuguese settlers in India.**

Serves 8

## Coorgi Pork

1.5 kg/3 lb pork • 30 dried red chillies, ground
12 onions • 250 ml/8 fl oz/1 cup water
15 ml/1 tbsp cumin seeds • 5 ml/1 tsp ground turmeric
15 ml/1 tbsp coriander (cilantro) seeds • 10 ml/2 tsp peppercorns
30 ml/2 tbsp white wine vinegar • 4 boiled potatoes, quartered
salt

**Cut the pork into small pieces and mix with the ground chillies. Leave to stand for 15 minutes then place in a pan. Slice 10 of the onions and add to the pork with the water. Bring to the boil, cover and simmer for 1 hour until the meat is cooked.**

**Grind the remaining onions with the cumin seeds, turmeric, coriander seeds, peppercorns and wine vinegar, and stir into the pan. Simmer for further 15 minutes. Add the potatoes and season to taste with salt. Simmer until heated through. Serve hot with vegetables, papadums and rice.**

Serves 4

## Sundia

900 g/2 lb pork, chopped • 5 ml/1 tsp ground turmeric
15 ml/1 tbsp ground coriander (cilantro) • 10 ml/2 tsp chilli powder
30 ml/2 tbsp oil or ghee • 10 ml/2 tsp poppy seeds
100 g/4 oz/⅔ cup red lentils • 2 cardamom pods
6 onions, chopped • 2.5 cm/1 in ginger root, chopped
2 bulbs garlic, chopped • 1 coconut, grated (shredded)
juice of 3 lemons • salt • oil for deep-frying

**Place the pork in a pan with the turmeric, coriander and chilli powder and pour in just enough water to cover. Bring to the boil and simmer gently for about 45 minutes until the meat is tender. Remove the meat and shred it. Heat a little oil or ghee and fry the poppy seeds, lentils and cardamom separately until lightly br ed. Add these to the meat with remaining ingredients and season taste with salt. Mix together well shape into balls. Deep-fry in hot over a low heat until nicely brown Serve hot with papadums, rice curry sauce.**

## Jainism

{jy'-nizm}

Jainism is a religious faith of India that is usually said to have originated with Mahavira, a contemporary of the Buddha (6th century BC). Jains, however, count Mahavira as the last of 24 founders, or Tirthamkaras, the first being Rishabha. In 1990 the number of Jains worldwide was estimated at 3,650,000, almost all of whom live in India. Jainism has been present in India since Mahavira's time without interruption, and its influence has been significant.

The major distinction within Jainism is between the Digambara and Svetambara sects, a schism that appears to date from about the 1st century AD. The major difference between them is that whereas the Svetambaras wear white clothes, the Digambaras traditionally go naked. Fundamentally, however, the views of both sects on ethics and philosophy are identical.

The most notable feature of Jain ethics is its insistence on noninjury to all forms of life. Jain philosophy finds that every kind of thing has a soul; therefore strict observance of this precept of nonviolence (ahimsa) requires extreme caution in all activity. Jain monks frequently wear cloths over their mouths to avoid unwittingly killing anything by breathing it in, and Jain floors are kept meticulously clean to avert the danger of stepping on a living being. Jains regard the intentional taking of life, or even violent thoughts, however, as much more serious. Jain philosophy posits a gradation of beings, from those with five senses down to those with only one sense. Ordinary householders cannot help harming the latter, although they should strive to limit themselves in this regard by refraining from eating meat, certain fruits, or honey or from drinking wine. In addition Jain householders are expected to practice other virtues, similar to those in Hinduism. The vows taken by the Jain monks are more severe. They eventually involve elements of asceticism: fasting, peripatetic begging, learning to endure bodily discomfort, and various internal austerities constituting a Jain variety of yoga. Jainism is unique in allowing the very spiritually advanced to hasten their own death by certain practices (principally fasting) and under specified circumstances.

Jain philosophy is based on a fundamental distinction between living and nonliving matter. Living souls are divided into bound and liberated; the living souls are found in both mobile and immobile loci. Nonliving matter is composed of karman or very fine particles that enter a soul and produce changes in it, thus causing its bondage. This influx of karman is induced by activity and has to be burned off by experience. Karmans are of infinitely numerous varieties and account for all distinctions noted in the world. By nonattachment, however, an individual can prevent influx of further karmans and thus escape from the bonds of action. A soul, which is thought of as having the same size as its body, at liberation has lost the matter that weights it down and thus ascends to the top of the universe, where it remains forever.

Jainism recognizes no supreme deity; its ideal is the perfection attained by the 24 Tirthamkaras. Numerous temples have been built celebrating the perfected souls; a notable example is the temple at Mount Abu in Rajasthan.

Karl H. Potter

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from Grolier's Interactive (computer) encyclopedia.

## vegetarianism

Vegetarianism is the practice of eating only foods from plants and avoiding all animal flesh, including red meat, poultry, and fish, and sometimes dairy products. A vegetarian diet consists of grains, beans, vegetables, and fruits, and the foods made from them, such as tofu, pasta, rice dishes, bean burritos, and even simulated meats. Vegetarians are classified into different types, depending on the acceptance of animal products. Lacto-ovo (or ovo-lacto) vegetarians consume milk or cheese, eggs, and sometimes honey, while vegans consume no animal products at all.

People may choose a vegetarian diet because of a variety of religious, philosophical, and ethical beliefs. Some people abstain from eating meat for religious reasons, for example Jains, and some Buddhists and Hindus, who believe that the killing and eating of animals violates the ethical precept of ahimsa, or nonviolence. Ecological reasons motivate other people, because much less land and food outlay is required to raise vegetables and grain than livestock.

Some people avoid animal products for health reasons. Vegetarians may live longer and have much lower risks for heart disease, cancer, diabetes, and other serious illnesses. They also tend to be thinner, to have lower blood pressure, and have a lower risk of osteoporosis, a condition in which the bones get weaker as a person ages. These health effects are attributed to the fact that vegetarian diets tend to be lower in fat and cholesterol and higher in fiber and certain vitamins.

People may adopt a vegetarian diet due to concerns about the methods used for raising animals. Most chickens, pigs, and veal calves are raised in close confinement and are given chemical additives in their feed, and these practices offend many people, for health and humane reasons.

In the past it was thought that vegetarians might develop protein deficiencies if they did not carefully combine their foods. It is now known that such careful planning is not necessary. Protein deficiencies do not occur if one eats a variety of plant foods and eats enough to maintain one's weight. However, most nutritionists believe that vegans should eat vitamin-enriched cereals or take a vitamin supplement for vitamin B-12, which is needed in small amounts for healthy blood and nerves (see nutrition, human).

Neal Barnard

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Vol LXXIV No. 188 City New Delhi Wednesday July 8 1998

The Hindustan Times

BJP vice-president K. L. Sharma, who went on a protest 'fast' against the Delhi Government's failure to provide adequate power and water, at his home in New Delhi on Monday. — HT photo by S. Burmaula

## K L Sharma plans 'fast' to put pressure on Delhi Govt departments

By A Staff Reporter

NEW DELHI: Bharatiya Janata Party vice-president and member of parliament from Outer Delhi, Krishan Lal Sharma has said he shall stop taking 'ann' (grains) from Monday for an indefinite period to put "moral pressure" on various Delhi government departments so that they improve their functioning.

Moreover, Mr Sharma said by giving up grains he also wanted to express regret to the people of Delhi for their sufferings despite the efforts made by the BJP led Delhi government ever since it came to power five years ago. He said despite the efforts, a lot remains to be done since plans are not formulated in time and implementation is delayed. Among the major problems faced by Delhiites, he said, are those of water, electricity and sanitation; these, he said, need to be given priority.

This statement by Mr sharma is expected to cause considerable embarrassment to the BJP government led by chief minister Sahib Singh. For Mr Singh, in particular, Mr Sharma's decision and statement is likely to cause much discomfiture, particularly since he is said to have an ally in Mr Sharma.

In fact, it is from Outer Delhi, said to be Mr Singh's stronghold, that Mr Sharma has won the last two parliamentary elections. In both the February general elections and the ones held in 1996, Mr Singh had actively campaigned for Mr Sharma when he contested the Outer Delhi seat.

← The Times of India July 1998 →

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## IN BRIEF

### Sharma on 'protest diet'

NEW DELHI, July 7 (UNI) BJP vice-president K. L. Sharma today explained that he was not on a hunger strike but was on a non-cereal diet in public interest. "This is for the public good," he said.

He added that his protest dieting was not against the Chief Minister's functioning. Mr Sahib Singh Verma is doing "Exceptionally good work."

Mr Sharma dismissed the Delhi Pradesh Congress Committee's criticism of his restricted dieting. He said in the past 45 years, the Congress party had done nothing to improve the lot of Delhiites.

The Hindustan Times 7/8/98

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## K L Sharma's diet jolts Delhi BJP

NEW DELHI: The Delhi BJP has been shaken by their national vice-president K L Sharma's announcement of an off-cereal diet to bring "moral pressure" on the city government to improve its performance. And, it's said to have come as a blow specially for chief minister Sahib Singh, who is believed to be close to Mr Sharma. The matter came up at a meeting of the Delhi BJP legislature party on Monday. **(P5)**

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## *'Sharma must ask for Govt's dismissal'*

By A Staff Reporter

NEW DELHI: The Delhi Congress has called BJP MP K L Sharma's announcement of a off-cereal protest diet "an act of confession of failure (of the party's government in Delhi) by the senior leader".

In a statement issued on Monday, Delhi Congress chief Sheila Dikshit said, "In fact, if he (Mr Sharma) is truly serious and really concerned, he should ask for the removal and dismissal of the Sahib Singh government." The Congress has been of late stepping up its campaign against the BJP government — to "highlight its failures" — with an eye on the assembly elections, which are some months away.

Mr Sharma's statement is being taken as a confirmation of what the Congress has been alleging over the last few days — that the BJP government has been a failure and it should go. Ms Dikshit said, "I felt sorry to read this morning that Shri K L Sharma...is compelled to undertake a fast against the miserable failure."

The Times of India 7/7/98

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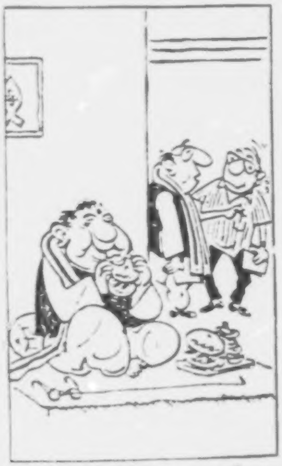
### HERE AND NOW

Sudhir Tailang



He's on a 'fast' — eating only fast food!

7/8/98 The Hindustan Times

BEST COPY AVAILABLE

A Compilation of Gandhi's beliefs on food + Diet.

From: Gandhi, M.K. India of My Dreams Ahmedabad: Navajivan Publishing House, 1947.

down to village life. And if they will do this, they must reconstruct their life and pass every day of their vacation in the villages surrounding their colleges or high schools, and those who have finished their education or are not receiving any should think of settiing down in villages.

*Young India*, 7-11-'29

If the sense of shame that wrongly attaches to physical labour could be got rid of, there is enough work and to spare for young men and women of average intelligence.

*Harijan*, 1-3-'35

No labour is too mean for one who wants to earn an honest penny. The only thing is the readiness to use the hands and feet that God has given us.

*Harijan*, 19-12-'36

## CHAPTER XL

## THE NATION'S HEALTH, HYGIENE AND DIET

It is established beyond doubt that ignorance and neglect of the laws of health and hygiene are responsible for the majority of diseases to which mankind is heir. The very high death rate among us is no doubt due largely to our gnawing poverty, but it could be mitigated if the people were properly educated about their health and hygiene.

*Mens sana in corpore sano* is perhaps the first law for humanity. A healthy mind in a healthy body is a self-evident truth. There is an inevitable connection between mind and body. If we were in possession of healthy minds, we would shed all violence and, naturally

obeying the laws of health, we would have healthy bodies without an effort.

The fundamental laws of health and hygiene are simple and easily learnt. The difficulty is about their observance. Here are some:

Think the purest thoughts and banish all idle and impure thoughts.

Breathe the freshest air day and night.

Establish a balance between bodily labour and mental work.

Stand erect, sit erect, and be neat and clean in every one of your acts, and let these be an expression of your inner condition.

Eat to live for service of fellow-men. Do not live for indulging yourselves. Hence your food must be just enough to keep your mind and body in good order. Man becomes what he eats.

Your water, food and air must be clean, and you will not be satisfied with mere personal cleanliness, but you will infect your surroundings with the same three-fold cleanliness that you will desire for yourselves.

*Constructive Programme*, pp. 18-9

### Minimum Diet

Use one grain at a time. *Chapati*, rice and pulses, milk, ghee, *gur* and oil are used in ordinary households besides vegetable and fruit. I regard this an unhealthy combination. Those who get animal protein in the shape of milk, cheese, eggs or meat need not use pulses at all, the poor people get only vegetable protein. If the well-to-do give up pulses and oils, they set free these two essentials for the poor who get neither animal protein nor animal fat. Then the grain eaten should not be sloppy. Half the quantity suffices when it is eaten dry and not dripped in gravy. It is well to eat with raw salads such as onion, carrot, radish, salad leaves, tomatoes. An ounce or two of salads serve the purpose of eight ounces of cooked vegetables. *Chapatis* or bread should not be eaten with milk. To begin with, one meal may be raw vegetables and *chapati* or bread, and the other cooked vegetables with milk or curds.

Sweet dishes should be eliminated altogether. Instead *gur* or sugar in small quantities may be taken with milk or bread or by itself.

Fresh fruit is good to eat, but only a little is necessary to give tone to the system. It is an expensive article, and an over-indulgence by the well-to-do has deprived the poor and the ailing of an article which they need much more than the well-to-do.

Any medical man who has studied the science of dietetics will certify that what I have suggested can do no harm to the body; on the contrary it must conduce to better health.

*Harijan*, 25-1-'42

The unlimited capacity of the plant world to sustain man at his highest is a region yet unexplored by modern medical science which through force of habit pins its faith on the shambles or at least milk and its by-products. It is a duty which awaits discharge by Indian medical men whose tradition is vegetarian. The fast developing researches about vitamins and the possibility of getting the most important of them directly from the sun bids fair to revolutionize many of the accepted theories and beliefs propounded by medical science about food.

*Young India*, 18-7-'29

It almost seems to me that it is reserved for lay enthusiasts to cut their way through a mountain of

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difficulties even at the risk of their lives to find the truth. I should be satisfied if scientists would lend their assistance to such humble seekers.

*Young India*, 15-8-'29

I believe that man has little need to drug himself. 999 cases out of a thousand can be brought round by means of a well-regulated diet, water and earth treatment and similar household remedies.

*Autobiography*, p. 270

Instead of using the body as a temple of God we use it as a vehicle for indulgences, and are not ashamed to run to medical men for help in our effort to increase them and abuse the earthly tabernacle.

*Young India*, 8-8-'29

There is a great deal of truth in the saying that man becomes what he eats. The grosser the food the grosser the body.

*Harijan*, 5-8-'33

I do feel that spiritual progress does demand at some stage that we should cease to kill our fellow creatures for the satisfaction of our bodily wants. The beautiful lines of Goldsmith occur to me as I tell you of my vegetarian fad :

No flocks that range the valley free
To slaughter I condemn,
Taught by the Power that pities me
I learn to pity them.

*India's Case for Swaraj*, p. 402

I do not regard flesh-food as necessary for us at any stage and under any clime in which it is possible for human beings ordinarily to live. I hold flesh-food to be unsuited to our species. We err in copying the lower

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animal world if we are superior to it. Experience teaches that animal food is unsuited to those who would curb their passions.

But it is wrong to over-estimate the importance of food in the formation of character or in subjugating the flesh. Diet is a powerful factor not to be neglected. But to sum up all religion in terms of diet, as is often done in India, is as wrong as it is to disregard all restraint in regard to diet and to give full reins to one's appetite. Vegetarianism is one of the priceless gifts of Hinduism. It may not be lightly given up. It is necessary, therefore, to correct the error that vegetarianism has made us weak in mind or body or passive or inert in action. The greatest Hindu reformers have been the activest in their generation and they have invariably been vegetarians. Who could show greater activity than say Shankara or Dayananda in their times?

*Young India*, 7-10-'26

### When to Fast

Out of the fulness of my own experience and that of fellow cranks, I say without hesitation, fast (1) if you are constipated, (2) if you are anaemic, (3) if you are feverish, (4) if you have indigestion, (5) if you have a headache, (6) if you are rheumatic, (7) if you are gouty, (8) if you are fretting and fuming, (9) if you are depressed, (10) if you are overjoyed, and you will avoid medical prescriptions and patent medicines.

*Young India*, 17-12-'25

### National Food

I believe that we should be able to accommodate ourselves to the food eaten in the provinces other than our own. I know that this is not so simple a question as it appears. I know southerners who have made a herculean effort to take to Gujarati food and failed. Gujaratis will not take to the southern mode of cooking. Bengal produces dainties which the other provinces will not easily relish. If we would be national instead of provincial, we would have to have an interchange of habits as to food, simplify our tastes and produce healthy dishes all can take with impunity. This means a careful study of the foods taken by different provinces, castes and dinominations. Unfortunately, or fortunately, there are not only different combinations in different provinces, but there are different styles in the same province, among the different communities. It is necessary, therefore, for national workers to study the foods and the methods of preparing them in the various provinces and discover common, simple and cheap dishes which all can take without upsetting the digestive apparatus. In any case, it must be a shame for workers not to know the manners and customs of different provinces and communities. . . . What can and should be aimed at are common dishes for common people. This I know is easily possible if we have the mind. But to make this possible, volunteers will have to learn the art of cooking and for this purpose they will have also to study the values of different foods and evolve common dishes easily and cheaply prepared.

*Harijan*, 5-1-'34

### Leprosy

Leper is a word of bad odour. India is perhaps a home of lepers next only to Central Africa. Yet they are as much a part of society as the tallest among us. But the tall absorb our attention though they are least in need of it. The lot of the lepers who are much in need

From: Prakash, S. Story of Swarajya. New Delhi: National Book Trust, 1973

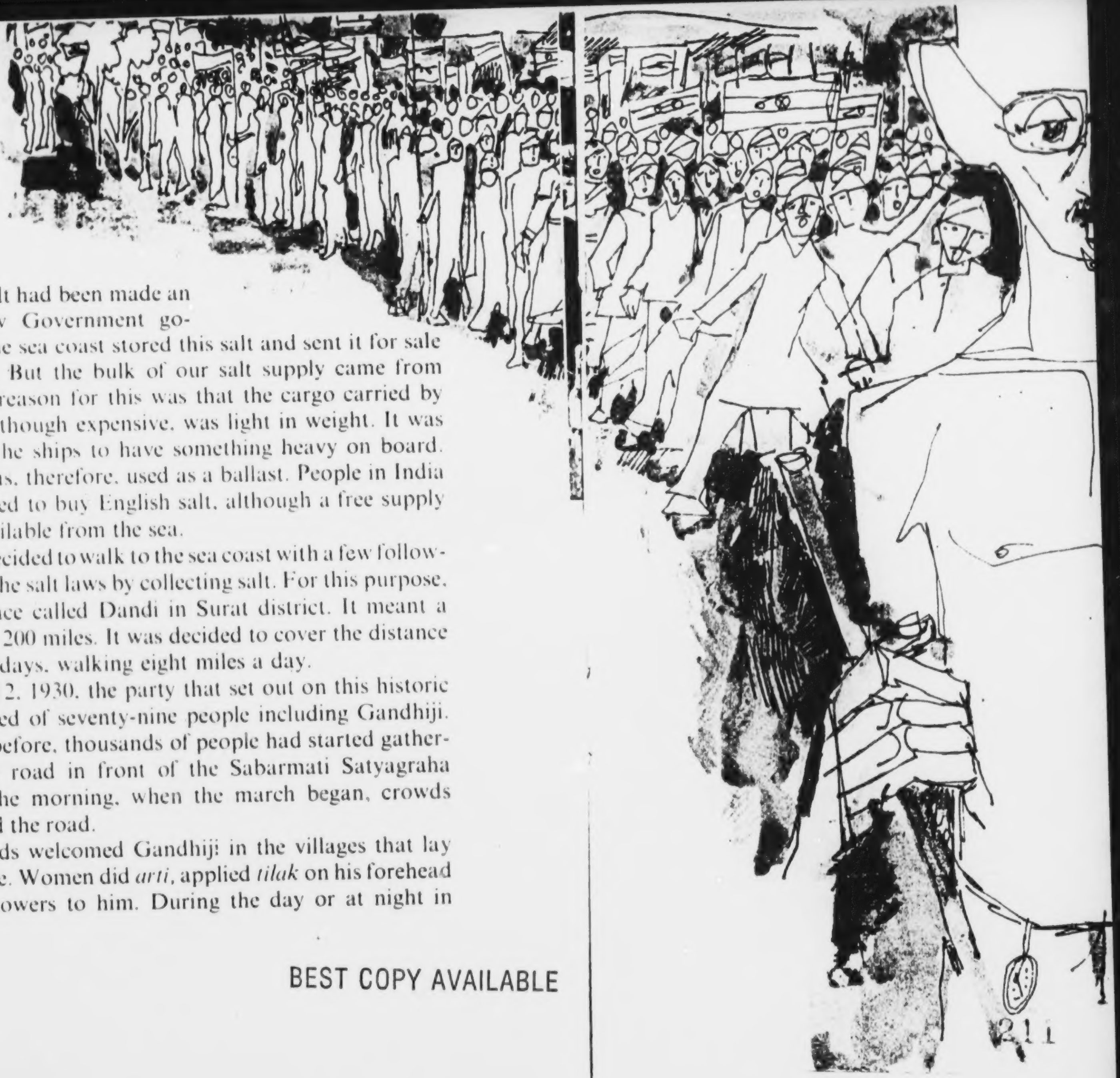
## THE SALT SATYAGRAHA

January 26, 1930 was chosen as Independence Day. On that day, in every city and town, people took a pledge to work for complete independence. The Congress entrusted Gandhiji with the task of starting a *satyagraha* campaign and gave him the responsibility of leading it. The organisation and date of the campaign were left to him to decide.

Gandhiji decided to start his *satyagraha* by breaking the salt laws. This puzzled many people. What would they achieve by breaking these laws, they wondered. Those who had expected a dramatic move were disappointed. But when the salt campaign began, everyone was full of admiration at Gandhiji's shrewdness.

Gandhiji had wanted to build his campaign around some issues which concerned the poor. He wanted to draw the people's attention to the fact that millions of Indians could not afford even salt with their food. India has a long coastline and on the sea coast salt is formed. When the sea-water rises with the waxing of the moon and reaches its highest level on a full-moon night, it covers large tracts of the coast and sea-water collects in large hollows. When the moon wanes, the sea recedes. The water in the hollows dries up, leaving behind clear white salt.

Large quantities of this salt lay all along the coast but the



collection of salt had been made an offence. A few Government godowns along the sea coast stored this salt and sent it for sale to the market. But the bulk of our salt supply came from England. The reason for this was that the cargo carried by English ships, though expensive, was light in weight. It was necessary for the ships to have something heavy on board. English salt was, therefore, used as a ballast. People in India were thus forced to buy English salt, although a free supply of salt was available from the sea.

Gandhiji decided to walk to the sea coast with a few followers and break the salt laws by collecting salt. For this purpose, he chose a place called Dandi in Surat district. It meant a walk of nearly 200 miles. It was decided to cover the distance in twenty-five days, walking eight miles a day.

On March 12, 1930, the party that set out on this historic march consisted of seventy-nine people including Gandhiji. On the night before, thousands of people had started gathering along the road in front of the Sabarmati Satyagraha Ashram. In the morning, when the march began, crowds of people lined the road.

Large crowds welcomed Gandhiji in the villages that lay along the route. Women did *arti*, applied *tilak* on his forehead and offered flowers to him. During the day or at night in

Sabarmati Ashram

villages where the party stopped for food and rest, Gandhiji talked to the villagers and addressed public meetings.

On April 5, the party reached Dandi. The next day, April 6, was the day of *satyagraha*. On that day Gandhiji and his entire party took a bath in the sea and collected salt-water. This was then heated and about five grams of salt obtained. This salt was auctioned at a meeting. A

businessman from Ahmedabad paid Rs. 525 for the five grams of salt.

By breaking the salt laws, Gandhiji had opened the way for everyone to offer *satyagraha*. Thousands of men and women began to break the salt laws. The police once again resorted to violence.

All over the country people were arrested and beaten up. But the Government had so far not dared to arrest Gandhiji. Gandhiji now took another decision. He announced that he and his followers would raid the Government salt godown at Dharasana from where salt was sent to the markets.

The Government's hands were thus forced. Before the raid could take place, Gandhiji was arrested.

After Gandhiji the leadership of the Salt Satyagraha party passed to Abbas Tyabji and on his arrest to Sarojini Naidu, a well-known Indian poet who wrote in English. She belonged to a distinguished family and was a great patriot.

Newspapers throughout the country carried reports that armed police had stopped Sarojini Naidu and her party in front of the Government salt godown at Dharasana. In the heat of May, she was made to sit on the burning sands without food or water all day long.

Finally, she was arrested. But for weeks, batches of *satyagrahis* continued to make attempts to raid the godown. Mounted police charged, and *lathis* rained on their heads. Many *satyagrahis* were seriously injured and, wounded and bleeding, they were put in jail.

## THE GANDHI-IRWIN PACT

The number of *satyagrahis*, however, did not decline. In addition to breaking the salt laws, foreign cloth shops and liquor shops also were picketed. The youth of India was full of enthusiasm and patriotic fervour. Thousands went to jail, hundreds had their property confiscated, many died and innumerable people were wounded.

A special feature of the movement was the participation of women throughout India. In Gujarat particularly, Gandhiji's Dandi March had roused great enthusiasm among the women and a large number of them joined the march and even went to jail. In spite of the prevalence of *purdah* in North India, particularly in Bihar and U.P., hundreds of women joined the movement.

Summer was over; then came the rains, and then winter. But the *satyagraha* battle continued unabated. In Gujarat, a powerful no-tax movement had been started by the farmers of Bardoli and Khera taluks. In U.P. and some provinces, farmers began preparing for a no-tax campaign.

The Government got panicky. By the end of January 1931, the Viceroy, Lord Irwin, released all prominent Congress leaders and began negotiations for a settlement.

Round Table Conference

Lord Irwin and Gandhiji had a series of talks. Ultimately in March 1931, the Gandhi-Irwin Pact was signed. Both sides made concessions. The Congress agreed to attend the Round Table Conference in London and promised to suspend the *satyagraha* movement till then. The Government, on its part, released all those who had been arrested and announced that people could collect salt from the sea coast for their personal use.

At that time Englishmen were of two divergent views: those whom the success of Gandhiji's *satyagraha* movement had convinced that India would have to be given independence and those who still hoped that by strong arm methods and by the creation of differences among the various communities.

From Cultural Anthropology by Serena Nanda.

culture through contact with the West. Culture loss, and the subsequent loss of a positive personal identity, have led to the emergence of **revitalization movements**, consciously organized efforts to construct a more satisfying culture. Some of these movements aim to restore a golden age believed to have existed in the past; others look toward a utopian future in which roles will be reversed and the lowly will be in power. Sometimes, these movements reject all elements of the old cultural systems under which they suffer; in other cases, they attempt to combine new customs with the old and dissolve the social boundaries between the dominant and powerless groups in society. Even when a revitalization movement may be relatively ineffectual in bringing about the desired changes, it can still bring a sense of salvation and a more positive identity to people afflicted with feelings of conflict, inadequacy, and alienation from themselves and society.

In our own society, cultural loss, economic oppression, and powerlessness experienced by different lower-class and minority groups have also led to religious revitalization movements, such as the Ghost Dance among the native Americans in the 1880s and the Black Muslim movement in contemporary America. Two hundred years of slavery and a hundred and fifty years of prejudice and discrimination have left blacks in America economically deprived and burdened with a sense of racial inferiority. Various religious revitalization movements have appeared from time to time in the black community as a response to the stress of deprivation and the inability to forge a positive identity within American culture and society. The Nation of Islam, also known as the Black Muslims, is a contemporary revitalization movement that appears to be somewhat successful both in attracting members and in changing their lives (Parenti 1967).

A Rastafarian brother projects a confidence in his self-worth that prevails over the poorest of economic conditions. Founded in the tumultuous Jamaica of the 1930s, the Rasta community values a life style that leads to emancipation from established religious and cultural domination. (William Lewis)

The Black Muslims advocate racial separation in a nation of their own and obedience to the messianic and authoritarian leadership of the "messenger," Elijah Muhammad. The movement contains many religious elements drawn from Islam and rejects many cultural patterns that are part of black life in the United States. The Black Muslims do not for the most part seek violent confrontations with whites in order to create their new world, but rather attempt to change the behavior of blacks in a way that will endow their life with meaning and purpose. The movement offers hope in a future in which blackness will no longer be despised.

The success of this movement with blacks for whom all hope of rehabilitation had been dismissed—drug addicts, criminals, alcoholics, unemployed slum dwellers—has been impressive. They have become obedient to the teachings of Elijah Muhammad, abstaining from drink, drugs, tobacco, gambling, promiscuity, stealing, and idleness. Muslims are forbidden to spend money frivolously and are committed to pooling their resources to help themselves and one another. They have created Muslim-owned schools and businesses. Muslim men must dress conservatively in suits and ties. Muslim women are supposed to wear a full white robe covering their arms and legs and a white headdress. The dress of both men and women represents a break with the stereotype of the flamboyantly dressed lower-class black in America. The woman's dress in particular symbolizes a new relationship between men and women: women are protected, secluded, and obedient to males and are expected to be devoted to their homes and families.

The foods prescribed by the Nation of Islam are wholesome (whole wheat rather than white bread), and those that are forbidden include both the traditional Islamic taboos on pork and sea food, as well as "soul food" or the standard southern fare reminiscent of the past, such as corn bread, black-eyed peas, collard greens, and opossum. There is only one daily meal, which the family eats ceremoniously together. These patterns do not merely symbolize a new and positive identity for Black Muslims; they also have had a strengthening effect on health and family life.

The Black Muslim movement is a clear example of the ways in which the construction of a collective identity through the use of myth, symbol, and organization revitalizes the identity of the individual. The movement suggests that the seeking of change through secular political organization has not made a sufficient impact in restructuring American society to include a positive identity for all its citizens. Where politics fails, religious revitalization movements fill the gap.

This discussion of the Black Muslims again raises the question of whether religion may be more adaptive for some groups in society than for others. Where religious myths justify social stratification, elite groups obviously benefit more than others. Where the resentment of oppressed or subordinate groups is drained off in religious ritual, the resulting social stability would seem to be most advantageous to those already in the dominant positions. Although religion allows an illusion of control, this illusion may not be adaptive for many peoples in the long run. It remains to be seen whether political revitalization and participation will undermine the power of religious beliefs and rituals to alleviate the stresses caused by culture contact, modernization, and social inequality in the contemporary world.

## SUMMARY

1. Religion is the beliefs and practices of a society concerned with supernatural beings, powers, and forces. Religion is a universal culture pattern and goes back to the beginnings of the human species.
2. Religion has many functions. Some of the most significant are explaining aspects of the physical and social environment, reducing anxiety in risky situations, increasing social solidarity, education, ensuring conformity, maintaining social inequalities, and regulating the relationship of a group of people to their natural environment.
3. Religious ideas are always expressed through symbols in which things stand for other things. Religious ideas are also acted out in ritual, and ritual reinforces beliefs.
4. Two widespread kinds of religious beliefs are animism and animatism. Animism is the belief that inanimate objects as well as living creatures have life and personality. Animatism is the belief in an impersonal supernatural power.
5. Many kinds of religious rituals are used to manipulate and control supernatural pow-

**FARM** **Farm Animal Reform Movement**
10101 Ashburton Lane, Bethesda MD 20817; 301-530-1737

*"These hogs get up to the scalding tank, hit the water, and start kicking and screaming... No chance for them to get out. I am not sure if they burn to death before they drown..."* - **"Slaughterhouse"**. p 84.

**1 September 1998**

**Dear Friend:**

Animals in US slaughterhouses are beaten to death and drowned in their own blood. They are mutilated, boiled, skinned, or ripped apart while fully conscious. These atrocities are perpetrated with tacit approval of USDA, in flagrant violation of the Humane Slaughter Act and common decency.

The shocking findings, based on eyewitness accounts by slaughterhouse workers and USDA inspectors, are reported in ***Slaughterhouse***, a thoroughly documented expose by investigative reporter Gail Eisnitz, published recently by Prometheus Press (see enclosed newsletter).

The 16th annual observance of **World Farm Animals Day** on October 2 will expose and prevent such atrocities. Thousands of animal activists in the US and several other countries will conduct educational events including tabling, exhibits, leafleting, picketing, vigils, and memorial services. On this day we all feel honor-bound to memorialize the billions of innocent, sentient animals who suffer every day in factory farms, auction yards, and slaughterhouses. The first observance was held in 1983; the last will celebrate the end of factory farming.

Here's what we're doing at **FARM's** national headquarters:

- ✓ We are sending mailings to 1600 potential coordinators of local educational events
- ✓ We are sending news releases and letters to 3,000 national and local media
- ✓ We are requesting proclamations from nearly 100 governors and mayors
- ✓ We are distributing 100,000 brochures presenting quotes from ***Slaughterhouse***
- ✓ We are placing newspaper ads containing quotes from ***Slaughterhouse***
- ✓ We are holding a vigil in front of USDA displaying quotes from ***Slaughterhouse***
- ✓ We are launching a Humane Enforcement Award for USDA employees.

**We invite you to be a part of this effort!**

Will you organize an educational event, write a letter to the editor, or place a newspaper ad, with the aid of the **Guide** overleaf? At the very least, will you return the enclosed **Humane Enforcement Public Opinion Survey** with a generous contribution to carry on this crucial campaign?

This year the meat industry is taking some major hits. Clearly, this is the time to seize the opportunity and to help put the industry out of its business of dealing misery to animals, its workers, its neighbors, and consumers. But none of this will come to pass without your continued support.

I ask you today to pledge 10 hours of your valuable time, or its monetary equivalent, to this crucial campaign. If you can spare the time, use the **Guide** overleaf or call us toll-free at **1-888-FARM-USA** to plan an educational event in your community. In either case, please send a generous contribution to help us open the eyes, the minds, and the hearts of the American people to the appalling tragedy of today's intensive animal agriculture.

**Thank you for caring. Please don't defer it. Sincerely,** Alex

**Alex Hershaft, PhD, President**

PS: As a token of our appreciation, we offer contributors of $35 or more a copy of *Slaughterhouse* or a box of farm animal greeting cards. Contributors of $100 or more receive both items.

*Please turn over...*

Recycled Paper

"Stop the Suffering of 10,000,000,000 Now!"

## WHAT YOU CAN DO

**The international veal ban campaign has a place for everyone. Here are some things that each of us can do:**

- Boycott 'milk-fed' veal, or all veal, to be on the safe side
- Start replacing animal products on your dinner table with the many wholesome convenience foods from your supermarket
- Ask your favorite restaurant and market not to carry veal
- Object to your organization serving veal at a function
- Write letters to the editor and call radio talk shows to expose the inhumane and unsanitary conditions of veal production
- Distribute veal leaflets, posters, bumper stickers, buttons, and other educational materials to your friends and associates
- Contact FARM to place an advertisement in your newspaper
- Contact FARM to arrange an event in your community
- **Join FARM to help us spread the message to millions.**

**Dear FARM Folks: Yes! I do want to take part in the National Veal Ban Campaign. Here's how:**

☐ I will speak out whenever the opportunity arises
☐ I may do more: please send a Veal Ban Action Kit
☐ I am enclosing a donation of $ ____ to help your work

Name ______________________________
Address ______________________________
City, ST ____________________ Zip __________
Phones (hm, wk) ______________________________

ALL CONTRIBUTIONS TO FARM ARE TAX-EXEMPT

**Please send to FARM, PO Box 30654, Bethesda, MD 20824**

## EDUCATIONAL ITEMS

**The following items are available for the National Veal Ban Campaign:**

| | |
|---|---|
| Veal Ban Action Kit (contains action guide, sample handouts, letters, news releases, and poster) | free |
| Brochures - *Are You Really ...* | 10/$1 |
| Posters, black/red | 2/$1 |
| Bumper stickers -*Boycott Veal* | 2/$1 |
| Buttons - *Boycott Veal* | 2/$1 |
| Photos and slides, full color | $2.50 |
| T-shirts - *Boycott Veal* | $10 |
| Tote bags - *Boycott Veal* | $8 |
| Aprons - *Boycott Veal* | $8 |

To order, please note number of each item and sizes for T-shirts. Add 15% for S&H. Send check to FARM, PO Box 30654, Bethesda, MD 20824.

## ABOUT FARM

FARM is a national nonprofit public-interest organization working to expose and reduce the destructive impacts of animal agriculture on animal well-being, environmental quality, and consumer health.

To this end, FARM conducts five national campaigns. **Great American Meatout** asks consumers to kick the meat habit. **World Farm Animals Day** memorializes farm animal suffering. **National Veal Ban Action** exposes inhumane and unsanitary conditions of veal production. **CHOICE** promotes plant-based nutrition education and meals in schools. **Letters From FARM** places letters to newspaper editors.

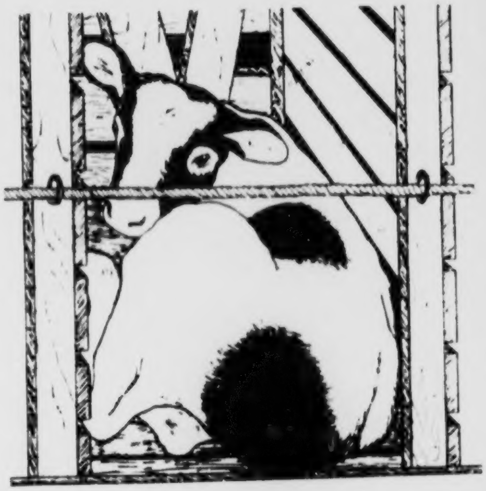
FARM is supported by contributions from concerned individuals and operates through a national network of local activists.

## OTHER RESOURCES

**Here is a partial list of organizations that can provide more information and handouts on veal production:**

- **FARM** - PO Box 30654, Bethesda, MD 20824; farm@farmusa.org; 301-530-1737; http://www.farmusa.org
- **Farm Sanctuary** - PO Box 150, Watkins Glen, NY 14891; 607-583-2225; http://www.farmsanctuary.org
- **Humane Farming Association** - 76 Belvedere St, Suite D, San Rafael, CA 94901; 415-485-1495
- **Humane Society of the US** - 700 Professional Dr, Gaithersburg, MD 20879; 301-258-3111;
- **PETA** - 501 Front St, Norfolk, VA 23510; 757-622-7382; http://www.peta-online.org

# Are You Really That Hungry?



**FARM** Farm Animal Reform Movement
PO Box 30654 Bethesda, MD 20824

## MISERY IN A CRATE

A dairy cow is impregnated each year to boost milk production. The male offspring is torn from his mother at birth, chained by the neck in a tiny wood crate, and forced to stand or lie on hard wood slats covered with his excrement. ☞

He is immobilized and fed a synthetic liquid formula deficient in iron and fiber to render his flesh soft and anemic. He is denied bedding, grass, water, fresh air, sunshine, and mother's love.

After 16 weeks of this misery, he is dragged to a slaughterhouse, where one man blows out his brains, another strings him up by his hind leg, and a third cuts his throat until all life bleeds out. His tortured body is then sliced and served as veal.

## CONSUMER FRAUD

Lack of iron, solid food, and exercise lead to widespread anemia, diarrhea, and respiratory disorders. The excrement maintains a state of perpetual infection.

To keep the calves alive for 16 weeks, their formula is laced with antibiotics including the outlawed chloramphenicol. Consumption of these antibiotics immunizes the pathogens in the consumer's intestines and handicaps these drugs in fighting deadly infectious diseases.

Moreover, veal is loaded with saturated fat, cholesterol, and other toxins linked conclusively with the chronic diseases that kill 1.5 million Americans annually. Indeed, 'milk-fed' veal is simply 'sick flesh of sick animals for sick consumers.'

## WHAT FARM HAS DONE

**FARM and other organizations have worked hard since the mid 70's to expose the inhumane and unsanitary conditions of veal production.** FARM's National Veal Ban Campaign, observed on Mother's Day by activists in a hundred communities, has encompassed these actions (see photos):

- Picketing and leafleting of restaurants and markets featuring 'milk-fed' veal
- Picketing and leafleting of public functions where 'milk-fed' veal is served
- Staging street theater and vigils in prominent public sites
- Distributing posters, photos, stickers, buttons, T-shirts, tote bags, aprons
- Placing ads in newspapers, magazines, and billboards
- Supporting legislation to ban veal crates.

**The results of the international effort to expose and improve veal production methods have been truly rewarding:**

- In the US, where veal industry refused to improve conditions, annual per capita consumption dropped 70 percent from 2.8 lbs in 1975 to 0.8 lb in 1997
- Many institutions have stopped serving veal at public functions
- The European Union now requires that the calves be able to move about
- The United Kingdom has banned veal crates altogether.

Clearly, the veal ban campaign has reached a number of people who are not sensitive to similar abuses visited on pigs, chickens, and other animals in factory farms and slaughterhouses. The ensuing tide of public opinion has made a difference..

Of course, the ultimate solution to the suffering of all farm animals is to stop eating them. In the meantime, we must expand our efforts to expose and improve their conditions. It appears that dairy calves are destined to lead the way.

VEAL BAN VAN
STOP THE AGONY IN THE CRATE

Mario's
VEAL: A TASTE OF TORTURE
SICK ANIMALS = SICK FOOD
HONOR THE MOTHER BOYCOTT VEAL
FACTORY FARMING
ANIMAL ABUSE
VEAL

# FARM'S ANNUAL REPORT - 1997

The highlight of our 1997 programs was **Animal Rights '97**, the national conference of the animal rights movement. At the same time, we maintained and improved our other programs including the **Great American Meatout, National Veal Ban Action, World Farm Animals Day, Nonviolent Thanksgiving, Letters From FARM, CHOICE,** and **Industry Watch**. Our staffing suffered considerably from the departure of two talented veterans. Our finances remained balanced, with strict cost controls.

GREAT AMERICAN MEATOUT celebrated its 13th year as our movement's largest annual grassroots campaign. Educational events in 1200 communities in all 50 states ranged from simple 'steakouts' to elaborate 'lifestivals,' featuring speakers, entertainment, exhibits, and food sampling. A Vegetarian Awareness Festival in Lincoln attracted 600. Visitors were asked to "kick the meat habit on March 20 (first day of spring) and explore a more wholesome, less violent diet." Scores of universities and other schools offered meatless meals, information tables, exhibits, and presentations. Public officials took part in meatless receptions and issued proclamations. Extensive media coverage with Casey Kasem carried the Meatout message to millions. Meatout now has its own website at http://www.meatout.org.

VEAL BAN ACTION was observed on Mother's Day once again to expose the inhumane and unsanitary conditions of 'milk-fed veal' calves. Activists in several dozen communities picketed veal restaurants, distributed literature, staged street theater, and wrote letters to the editor. This year's observance drew encouragement from Europe's pending veal ban. In the past two decades, this campaign has reached many people who are not sensitive to other animal issues, and veal consumption has dropped by 70 percent.

WORLD FARM ANIMALS DAY. October 2nd (Gandhi's birthday) marked the 15th observance of World Farm Animals Day exposing and memorializing the suffering and death of billions of farmed animals. This year's observance targeted America's fast food chains which determine what millions of people eat each day and how the animals they eat are treated. Hundreds of groups in all 50 states and ten other countries conducted picketing, leafleting, tabling, vigils, street theater, and disruptions at government offices, slaughterhouses, stockyards, fast food restaurants, and other sites associated with animal abuse. We distributed hundreds of posters featuring a slaughterhouse scene by famed painter Sue Coe. Ten governors and several city mayors issued World Farm Animals Day proclamations.

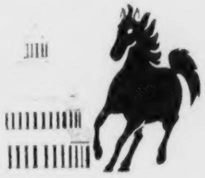
NONVIOLENT THANKSGIVING was the theme of our major media blitz promoting meatless Thanksgiving fare. We sent hundreds of news releases and letters to the editor presenting meatless holiday recipes and the "Top Ten Reasons to Have a Meatless Thanksgiving." Reports on local events and letters to the editor appeared in dozens of newspapers. FARM had pioneered the observance in the US.

LETTERS FROM FARM continued to carry our message to millions of newspaper readers throughout the year. Our national network placed more than 100 letters to the editor on ten topics in 50 major metropolitan dailies. We addressed the role of vegetarianism in preventing heart disease, cancer, and other chronic diseases; meat-borne infectious diseases, meat inspection, pathogen immunity to antibiotics, and meat irradiation; and fish kills by farm-fed *Pfiesteria* microbes, as well as, Great American Meatout, Veal Ban, World Farm Animals Day, and nonviolent Thanksgiving.

CHOICE **(Consumers for Healthy Options In Children's Education)** promotes plant-based nutrition education and meals in our nation's schools. During the past year, we sent classroom materials to nearly one thousand teachers throughout the US. Paul Shapiro of Washington (DC) won the **Bill Rosenberg Award** presented by FARM each year to a teenage farmed animal activist.

INDUSTRY WATCH. We reviewed dozens of meat and dairy industry journals and news releases, and sent copies of hundreds of selected articles to 25 other groups working for farmed animals. We published a report on the number of animals killed for food and expanded our vast collection of documents, slides, and photographs.

ANIMAL RIGHTS 1997, our movement's only national conference, was organized by FARM with the help of a dozen other organizations. The conference featured 600 participants, 75 speakers in 66 sessions, 40 videos, and 60 exhibits. A lobbying day followed. In April, President Alex Hershaft participated in the **Summit for the Animals** and conducted a speaking tour of Southern California. In October, he spoke in Northern California and a Utah vegan conference.



STAFFING became problematic toward the end of the year with the departure of Executive Director Scott Williams and Program Director Melissa Snider after a stellar four-year stint. The current FARM Board is made up of Alex Hershaft, Elliot Katz, and Melinda Marks Darer.

FINANCES remained on track in 1997 because of the generosity of our supporters and strict spending controls. Here are some preliminary numbers:

**INCOME:**

Approximately $200,000 (some of the pledges are still being collected), from individual contributions, grants, and bequests.

| **EXPENSES:** | |
|---|---|
| Services | $68,000 |
| Postage/phone | 40,000 |
| Printing | 30,000 |
| Rent | 19,000 |
| Advertising | 5,400 |
| Supplies | 2,500 |
| Other | 8,500 |
| TOTAL | 173,400 |

A detailed audited report is available on request. FARM is a member of Independent Charities of America, Animal Funds of America, and Combined Federal Campaign.

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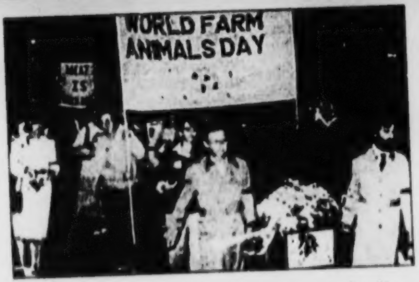

*New York activists stage a symbolic funeral procession (1985).*

*Israelis protest at their national Poultry and Dairy Council offices (1992).*

*FARM activists block a slaughterhouse gate in Smithfield, Virginia (1989).*

Each year, billions of animals are abused and killed in factory farms, stockyards, and slaughterhouses. **World Farm** Animals Day (WFAD) memorializes their suffering and death and calls on all caring people to examine their role in the savagery of today's animal agriculture.

First proclaimed at FARM's 1983 "Action for Life" conference, World Farm Animals Day has grown into a major international campaign. Hundreds of US communities hold memorial events each year. Observances also have been held in Australia, Canada, England, France, Germany, India, Israel, Italy, the Netherlands, Poland, Romania, the Slovak Republic, Sweden, Switzerland, and Taiwan. The date, October 2nd, honors the birthday of Mahatma Gandhi, the world's foremost advocate of humane agriculture.

All events are organized by local activists, who use a variety of tactics to draw public attention to the treatment of farmed animals. Information tables, video showings, and exhibits are popular, especially in schools, workplaces, and libraries. More dramatic events, such as vigils, memorial services, mock funeral processions, and civil disobedience, have reached millions by attracting media coverage. Slaughterhouses, stockyards, fast food restaurants, USDA offices, and busy public areas are common targets of such actions. Letters to newspaper editors and requests for official proclamations have helped promote the WFAD message.

**An exhibit or information table** can be arranged by one or two activists in just a few hours. Organizers need only obtain permission to set up in a school, library, or public park. All needed materials, including banners, posters, photographs, books, stickers, T-shirts, and handouts can be ordered from FARM.

Memorial services and vigils convey the message of WFAD with lighted (vegan) candles, banners, and signs. Street theater, speakers, and day-long fasts can have added effect. Memorial services and vigils have been held in front of the White House and the Department of Agriculture, at the monument to Chicago's infamous Union Stockyards, at Gandhi's statue in Hawaii, and at slaughterhouses in British Columbia, California, New Jersey, Texas, and Virginia.

Mock funeral processions can consist of either vehicles or marchers, with banners, hearses, coffins, and other appropriate props. A police escort helps keep the procession together at intersections while drawing public attention. Notable processions have been held in Washington, New York, Denver, Chicago, and Los Angeles.

Civil disobedience, in the form of blocking access to a facility associated with farmed animal abuse, is the most dramatic form of observance. It requires only a handful of committed participants willing to risk arrest, several hours of detention, and a fine. The more memorable cases were staged at the USDA headquarters in Washington, at a slaughterhouse in Smithfield, Virginia, at a stockyard in Petaluma, California, and at a New York City McDonald's.

Proclamations of World Farm Animals day have been issued by the mayors of Houston, Philadelphia, Toronto, and many smaller cities. Sample proclamation requests, as well as samples of letters to Congress and to newspaper editors are available from FARM.

World Farm Animals Day observances have contributed substantially to opening the eyes, minds, and hearts of consumers to the tragedy of farmed animals. A recent survey indicates that 93% of Americans are opposed to the suffering of farmed animals.

World Farm Animals Day is coordinated internationally by FARM, a nonprofit, public interest organization located near Washington, DC. Community events are arranged by local activists. **For more information call 1-888-ASK-FARM.**

WORLD DAY FOR
FARM ANIMALS
RESPECT
CHICKENS
DON'T
EAT
THEM

*An activist calls attention to a display table at USDA headquarters (1992).*

*German activists await EU ministers to protest inhumane transport (1994).*

AUCTION
SALES YARD

*California activists block a stockyard gate in Petaluma (1990).*

# STOP THE AGONY ON THE FARM!

Nine out of ten Americans believe that animals should be treated humanely. Yet, each year, over nine billion cows, pigs, and other innocent, feeling animals are caged, crowded, deprived, drugged, mutilated, and manhandled in US factory farms and slaughterhouses, until the butcher's knife ends their agony.

**Veal calves** are torn from their mothers at birth, chained by the neck in tiny wood crates, and force-fed a synthetic liquid diet deficient in natural nutrients. They suffer from loneliness and chronic diarrhea and respiratory diseases.

**Breeding sows** give birth and nurse their young all year round under similar conditions. **Laying hens** are crammed up to seven birds into a cage the size of a folded newspaper, with wire-mesh floors and walls cutting their feet and tearing out their feathers. The 'lucky' males are smothered at birth in plastic garbage bags.

**This does not have to be.** The menus of McDonald's, Burger King, Wendy's, Kentucky Fried Chicken, and other fast food giants determine what millions of people eat each day. Their procurement practices dictate how suppliers raise their animals.

**World Farm Animals Day**, on October 2, exposes and memorializes the tragedy of farm animals. This year, it will initiate a campaign of letter writing and demonstrations requesting these firms to provide a choice of meatless entrees and humane treatment of animals.

**For free Starter Pack:**
**1-888-FARM-USA**

**WORLD FARM ANIMALS DAY**
**Box 30654, Bethesda MD 20824; www.farmusa.org**

**FARM ANIMAL REFORM MOVEMENT (FARM)**
**PO Box 30654, Bethesda, MD 20824 • 301/530-1737**

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**YES**, **I want to help stop the abuses of factory farming!**

☐ I enclose a contribution in the category noted

| | | |
|---|---|---|
| ☐ $1000-Benefactor | ☐ $500-Patron | ☐ $100-Sponsor |
| ☐ $35-Supporter | ☐ $20-Basic | ☐ $____-Other |

All contributors receive an information packet newsletters and special announcements Contributors of $35 or more are entitled to "Animal Factories," an illustrated expose of factory farming or a "Fight Factory Farming" T-shirt Contributors of $100 or more are entitled to both premiums Please specify item size

# BEFORE

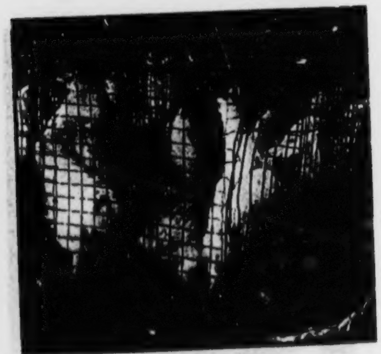
# THEY DIE,

# WISH THEY'D NEVER BEEN BORN!

## ANIMAL SUFFERING

are torn from their mothers at birth, chained by the neck in tiny crates without bedding or light, and forced to stand or lie for 16 weeks on wood slats covered with their excrement, unable to stretch or turn around They are force-fed a synthetic liquid diet that is deliberately deficient in iron and fiber, to impart a pale coloring to their flesh, and laced with antibiotics, in a vain attempt to prevent the chronic diarrhea and respiratory disorders that kill up to 20 percent of the animals before slaughter

are kept continuously pregnant and confined in tiny metal "gestation stalls" Eventually, they are immobilized in "farrowing pens," where they give birth to a litter of 10-12 piglets The normal nursing period of 12 weeks is frequently cut to three, so that the sows can be impregnated again and forced to produce up to three litters a year



are crammed up to seven birds in a "battery cage" the size of a folded newspaper They are forced to stand for 18 months on a sloping wire mesh floor that cuts painfully into their feet, as the wire mesh cage walls tear out their feathers, forming painful blood blisters They are alternatively starved or overfed to adjust egg production Their beaks are cut off with a hot iron to prevent stress-induced cannibalism The males are more fortunate they are simply discarded and left to suffocate in plastic garbage bags

Unfortunately, no The family farm of yesteryear has been replaced by a giant, faceless "factory farm," where animals are viewed merely as tools of production in the pursuit of short-term profits Each year, nearly 8 billion cattle, pigs, sheep, chickens, turkeys, and other feeling, innocent animals are caged, crowded, deprived, drugged, manhandled, and mutilated on U S factory farms until stress-induced disease or the butcher's knife ends their agony

## HUMAN SUFFERING

But farm animals are not the only ones to suffer the scourge of factory farming Each year 1.4 million Americans are killed by heart disease, stroke, cancer and other chronic diseases that have been linked conclusively with consumption of animal fat and meat The antibiotics in animal feeds increase the consumer's susceptibility to infectious diseases Thousands of primates, dogs, cats and other animals are tortured and killed each year in biomedical laboratories in a vain search for a "cure" for these diseases, self-inflicted by a meat-based diet

## RESOURCE DESTRUCTION

But there's more Raising animals for food takes a tremendous toll of our precious natural resources It wastes grain and other scarce foodstuffs that could be used to feed the world's 800 million starving people It uses and poisons up to 90 percent of our agricultural land, destroys forests and other wildlife habitats, exterminates wildlife, and exhausts critical groundwater supplies Runoff from this land carries irreplaceable topsoil into our lakes and streams, contributing more pollution burden than all other human activities combined

People for the Ethical Treatment of Animals (PETA) is an international nonprofit organization dedicated to exposing and eliminating animal abuse wherever it occurs. PETA uses public education, litigation, research & investigations, media campaigns, and grassroots organizing to accomplish its goal of protecting all animals from exploitation and abuse.

PETA is successful. In 1981, PETA's efforts in behalf of the Silver Spring monkeys resulted in the first-ever conviction of an animal experimenter on cruelty charges.

Since then, PETA has come to the rescue of animals suffering on fur farms and factory farms and in dealer kennels, slaughterhouses, laboratories, pet shops, zoos, and more. We have made countless people aware of the plight of animals they once related to as meat or clothing or did not consider at all. Operating under the credo "Animals are not ours to eat, wear, experiment on, or use for entertainment," PETA supporters defend the right of all individuals, human and other-than-human, to be respected and live peacefully without fear of harm or persecution.

From Capitol Hill to community animal shelters, PETA strives to promote a world in which animal suffering is recognized, halted, and prevented.

PETA depends on members' donations to fund its vigorous and vital work. It also depends on the determination and dedication of all humane people to take action to ensure that the animal protection struggles of today become the victories of tomorrow.

## What You Can Do

- One of the easiest ways to show your compassion for animals is to stop eating them. Try replacing the animal foods in your diet with healthy, humane vegetarian staples, including whole grains, fresh fruits and vegetables, and beans and soy foods. Vegetarian fare can be both familiar (veggie burgers, pasta with tomato sauce) and exotic (curried vegetables over couscous, stir-fry with tofu), so you'll never miss the meat! Contact PETA for free recipes.

- Be informed. Read books like Peter Singer's *Animal Liberation* ("the bible of the animal rights movement") and John Robbins' *Diet fo* *a New America*, which exposes the realities of meat production and consumption.

- Talk to your friends, relatives, and coworkers about vegetarianism. If people as what you had for lunch or how you get your protein, use the opportunity to tell them how animals are treated on factory farms, how much healthier a vegan diet is than a meat-based one, how much weight you've lost since you stopped eating animal foods, or how delicious veggie fare is. Don't be shy about sharing the good news! If peo want to learn more, feel free to refer them PETA.

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**PeTA**

People for the Ethical Treatment of Animals
501 Front St., Norfolk, VA 23510; 757-622-PETA
www.peta-online.org

## Traditional and Modern Diets

Objective / Aim: For social studies students to describe positive and negative results of modernizing the diet in India and maintaining a more traditional diet.

Materials:

1. Photocopies of modern and more traditional foods and ways of selling them in India.
2. Articles on diseases, eating disorders, environmental destruction, and animal abuse related to modern diets.
3. Articles on Ayurvedic medicine.

Vocabulary - ayurvedics, animal rights, bulimia, anorexia, vegan

Motivation: Ask students to write down their favorite foods. Ask students to each name one of their favorite foods. As they do, all students should make a collective list. The teacher should let them know which foods are commonly eaten by Indians and which are luxury items, rarely available or only available to the wealthy. Ask them for reactions and whether they think this is positive or negative for the Indian people. Show them photos of more traditional snacks, marketplaces and ways of serving food.

* Note. Teachers should emphasize that most fast and junk foods are not normally available to the majority of Indians who live in villages. Some city dwellers have these foods, but only those who can afford their higher prices.

Do Now / Strategies: Give students articles discussing diseases related to eating high fat, sugar, calorie, and additive filled foods. As students read they should take notes on the included handout. Students should explain how these new foods differ from Indian's traditional diet and evaluate whether this "modernity" is an improvement or not from India's traditional diet, as they have studied in previous lessons. Discussion and review of previous lessons should help students fill in an explanation of Indian's traditional diet.

Students should then answer questions on how Americans might learn from Indian health traditions and how Indians can learn from America's experiments with "modern foods" and health related problems. Handouts and discussions can include information on Ayurvedic medicine and vegetarianism as messages Indians can send to America and articles on environmental concerns related to animal farming, pesticides and additives, eating disorders, cancer, diabetes, and heart disease can be dangers Indians might avoid by sticking to a more traditional diet.

## Tradition or Modernity? The Daily Diet

1. What diseases do many experts believe are cause by foods high in fat, sugar, salt, cholesterol, alcohol, and chemicals?

2. Which food western food products are present in India, based on the advertisements and photos you have available?

3. Do you think any of these foods might contain the ingredients listed in number one? If so, list those foods.

4. What would be a "traditional" Indian diet?

5. Are these foods high in the ingredients listed in number 1?

6. What advantages are there to Indian people being able to purchase these "modern" foods?

7. What disadvantages are there?

8. What is ayurvedic medicine?

9. Why is a vegetarian diet (which 70% of all Indians have) considered more healthy by doctors?

10. What health problems are Americans suffering from?

11. What type of diet do many experts and doctors recommend for Americans?
    i.e. What foods do they suggest Americans cut out of our diet?

12. Is this recommended diet similar to the traditional Indian diet in any way? How?

13. Are any of the foods doctors say we should avoid the same as those only eaten by the wealthy in India?

12. Could Americans benefit by eating traditional Indian foods? Explain.

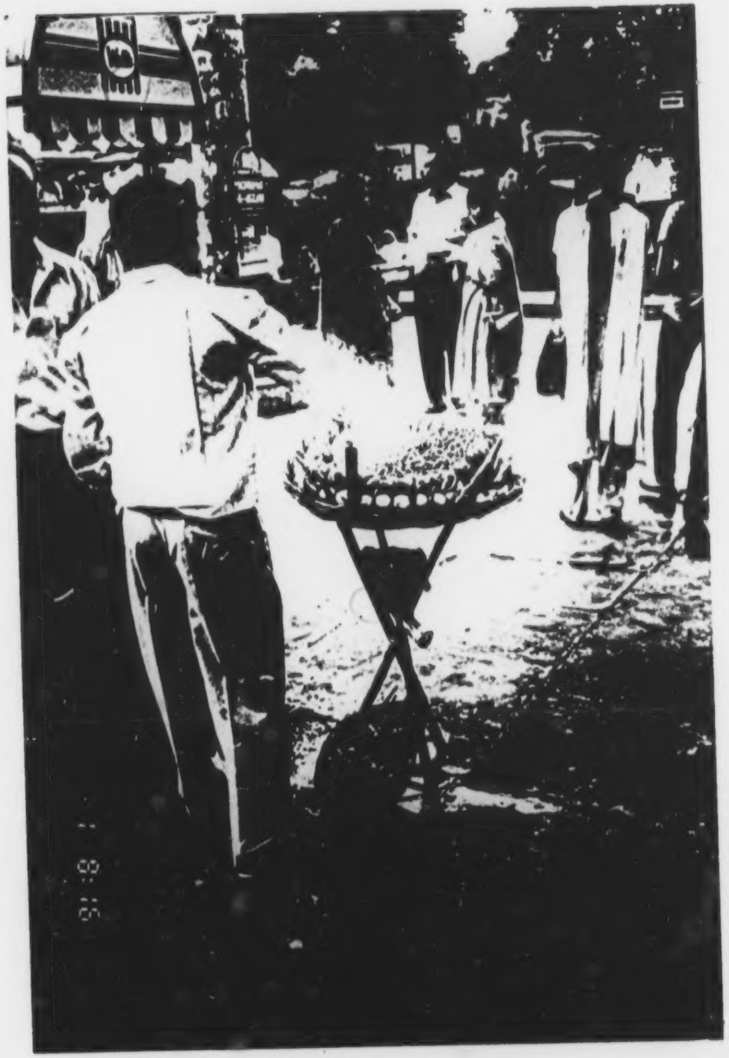
13. What can Indian people learn about the “modern” American diet? Is it healthy? What problems might it bring to India?

Vocabulary
ayurvedics- an ancient Indian system of healing based on the use of herbs and finding balance in one's body
animal rights - the concern for the treatment of animals to insure un-cruel treatment
bulimia - an eating disorder characterized by eating large amounts and then exercising or vomiting to rid the body of the food.
anorexia -nervosa - an eating disorder characterized by not eating enough food and extreme thinness
vegan - a person who eats no animal products whatsoever, including any products with eggs or milk.

organic - produced without the use of pesticides or any other chemicals

diabetes - a disease in which the body produces too much or too little insulin, requiring other means to regulate blood sugar levels.

Traditional foods - being eaten & sold on the streets of India.



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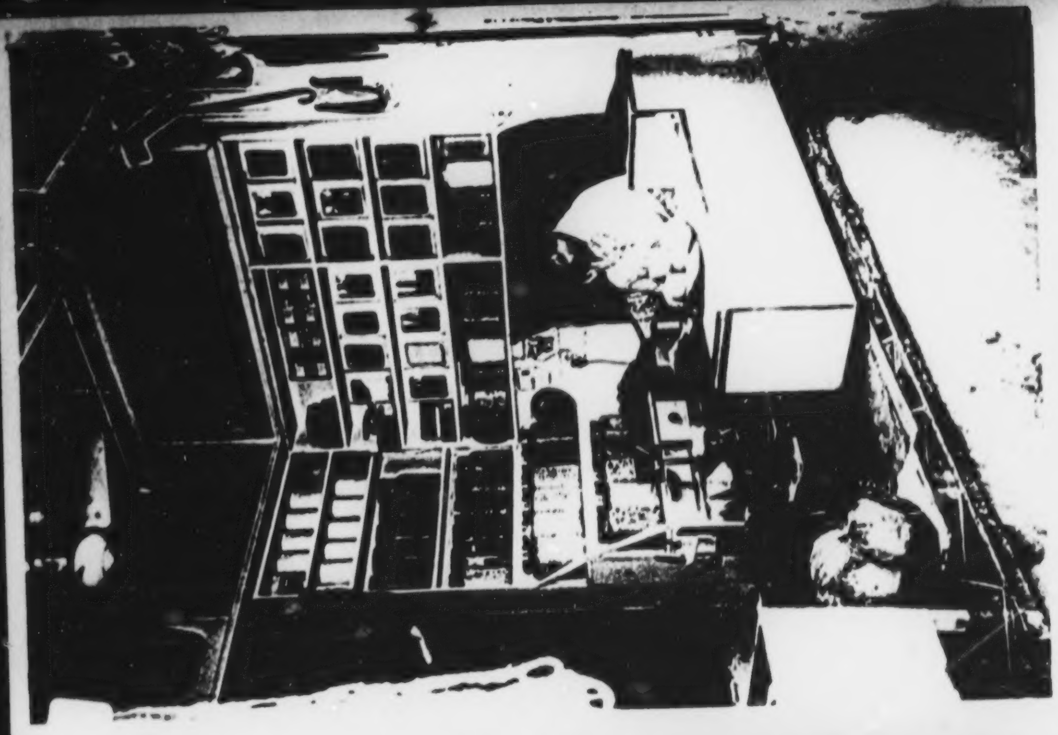
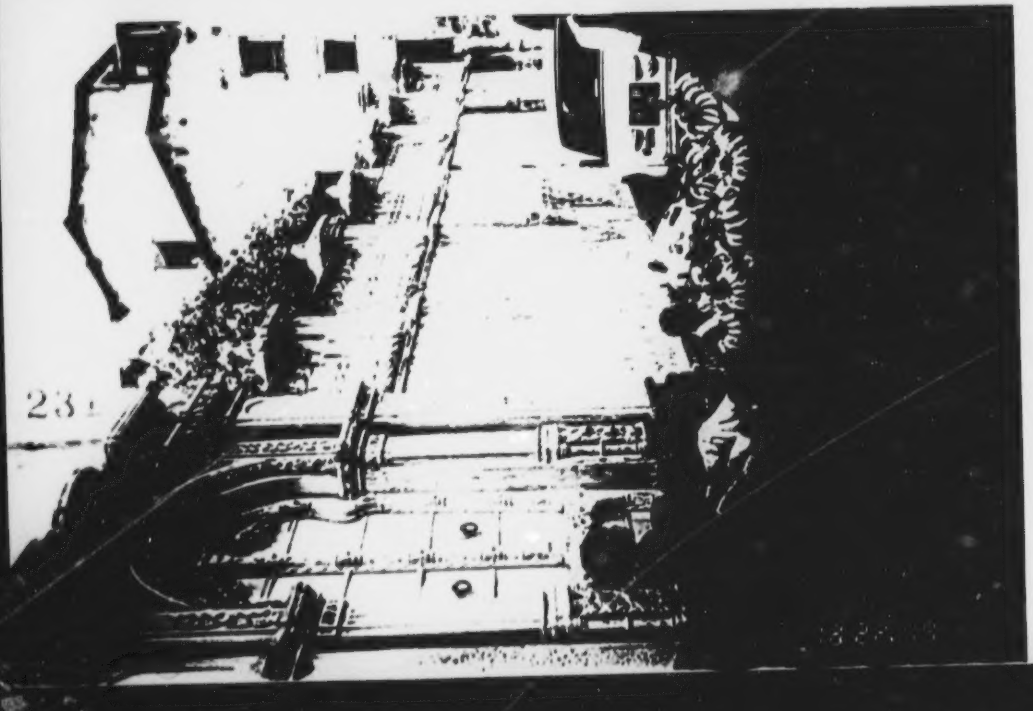
# TRADITIONAL WAYS of SELLING FOODS





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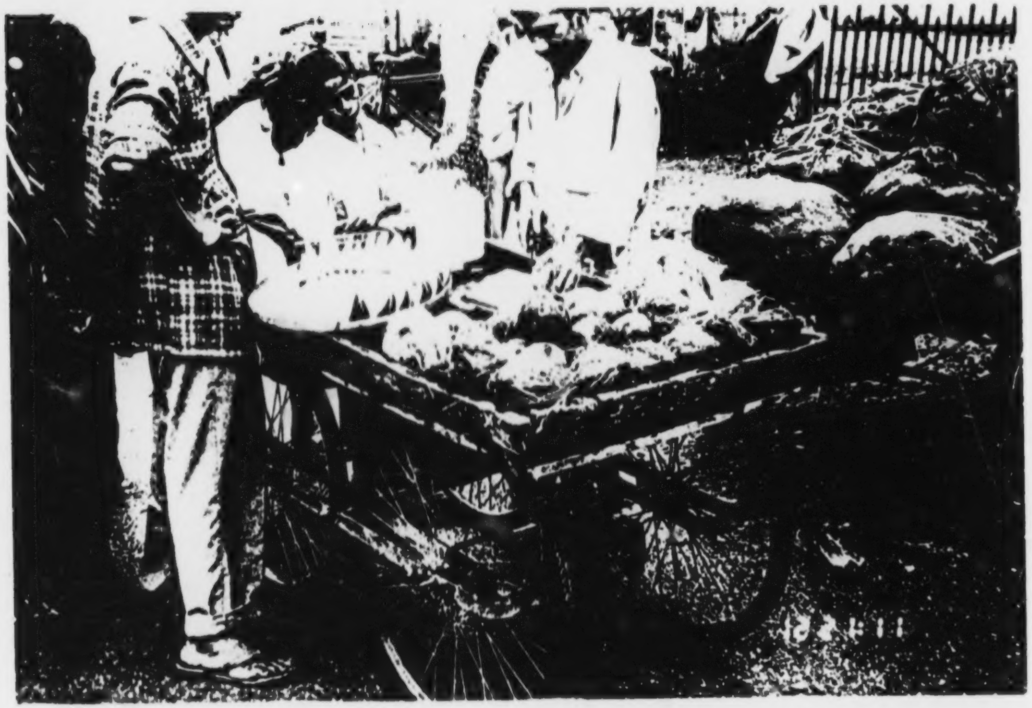
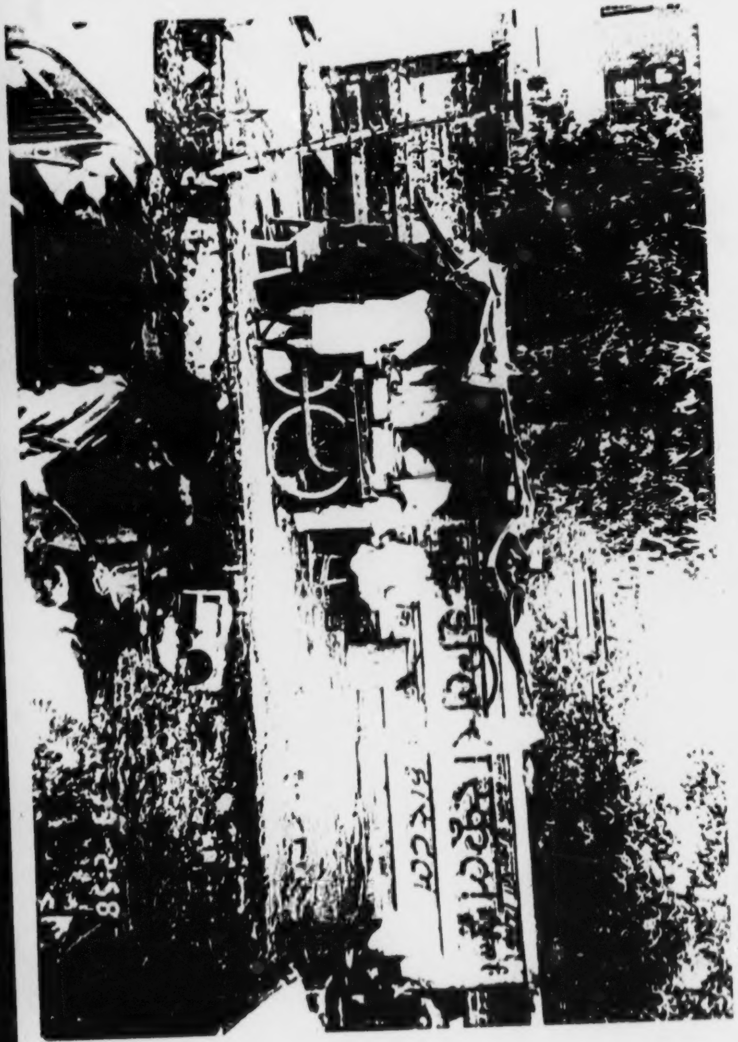
TRADITIONAL WAYS of SELLING FOOD



TRADITIONAL FOOD VENDORS



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"Modern" FOODS

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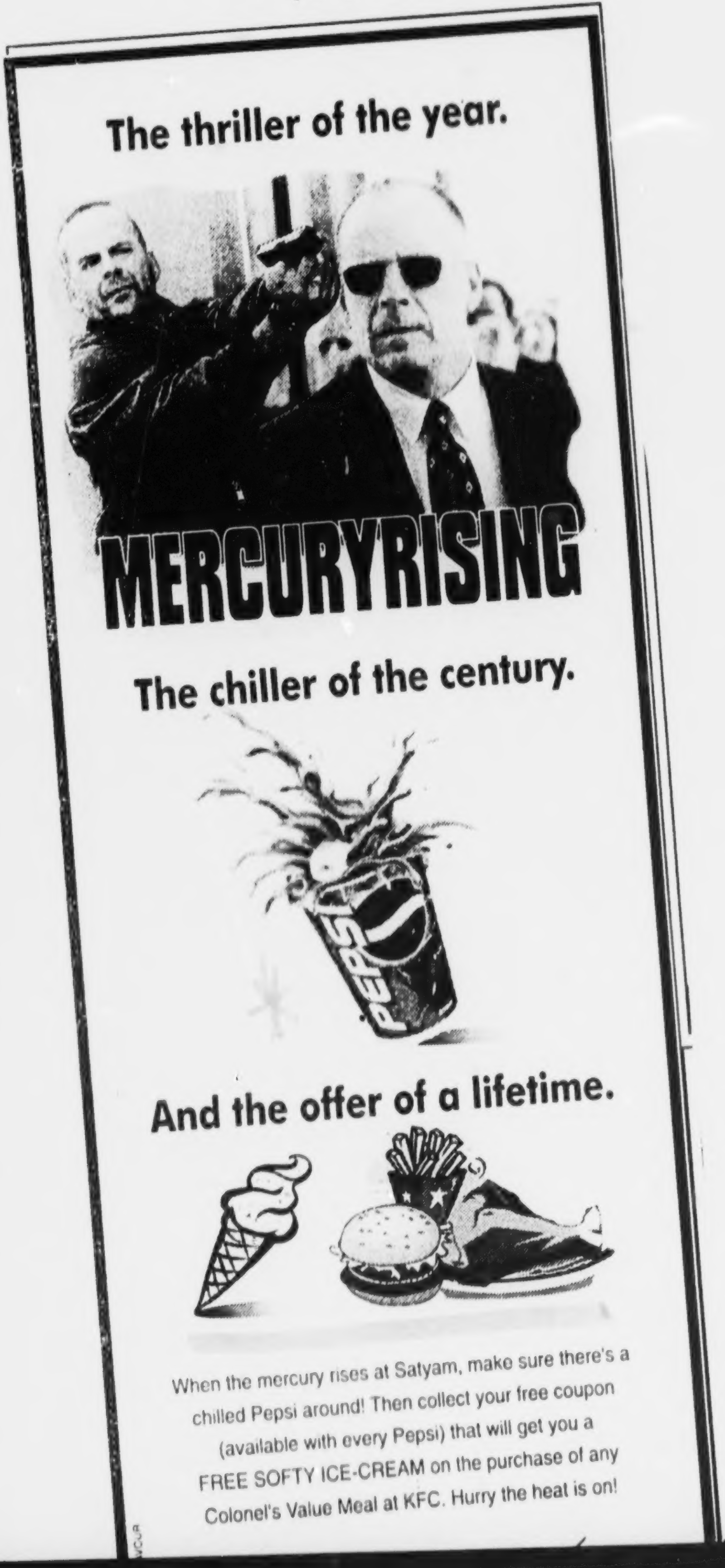

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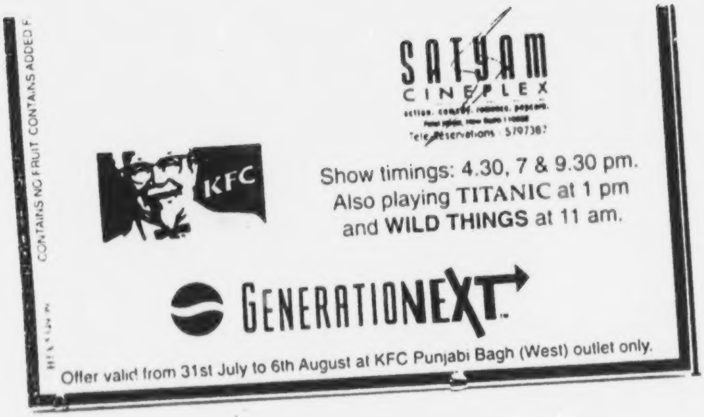

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Author's own Class Notes

## I. The Early Hunting and Gathering Diet

For million years human beings lived mostly in small groups or tribes. They depended on hunting and gathering of roots, berries, wild grasses, eggs, nuts, and sometimes honey for their food. While these people did not live as long as we do, because they often died of diseases modern medicine can control, it seems they did not suffer from as much cancer, heart disease, diabetes or obesity, conditions aggravated by our modern diet.

## II. Farming

Gradually these small tribes began to experiment with farming and growing of their own vegetables. This led to more people settling and living in one place. Cities developed as this happened. People's diets were quite similar to the hunting and gathering diet, but there was more variety. Dairy products and bread began to be eaten. As trade developed, foods from other areas were introduced in different environments. Farmer's diets, although higher in fat (because of more meat and dairy products), were relatively healthy and again, people did not die from the diseases of the modern diet.

## III. The Modern "Western" diet.

The farming diet is still the diet of many cultures around the world where farming is still practiced (South America, India, Asia, Africa). However, around 1900, as the machinery to process and package food developed in America, and as more and more people began to move to cities, many peoples' diets began to change. Rather than growing and eating one's own fresh foods, people started buying canned and processed foods in grocery stores. Business people realized there was a lot of money to be made by manufacturing tasty foods with catchy names and advertisements that made people want to buy them. Salty and sugar sweetened foods are very addictive--they make you want more--, so gradually many foods began to contain these ingredients because people would want to purchase more which meant more money for the businesses.

Today many nutritionists and doctors believe our diet is the cause of tooth decay, many diseases such as cancer, heart disease, diabetes, and the high percentage of obesity in our country and in other countries that eat like us. They think we eat too much fat, cholesterol, sugar, caffeing, and salt in our processed, fast, and junk foods. Not enough people pay attention to nutrition but rather let advertising influence what they choose eat.

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# Diets Can Be Deadly

## *Task force seeks to change unhealthy eating attitudes*

**By Lynda Baril**
STAFF WRITER

Brumilda Vega loves everything that is bad for her.

She loves butter. She loves cakes. And she goes crazy over pork chops with a "lot of fat."

On a regular day, the 33-year-old woman eats a few slices of bacon, two scrambled eggs and two well-buttered pieces of toast for breakfast. At night, she often eats a pan-fried steak and fried bananas. No vegetables. On a regular week, she gobbles down four or five chocolate bars. She is 35 pounds over her normal weight. Her mother suffers from diabetes and her grandmother died of the disease.

A new task force is trying to change attitudes of people like Vega, who lives in the Bronx.

Bad "diets kill more people than guns," said Joe Barnett, the director of the Task Force on Food, Farm and Nutrition Policy, which last week held a hearing on nutrition and health problems in the black and Hispanic communities.

The task force is chaired by Bronx Assemb. Gloria Davis, who also heads the New York State Black and Puerto Rican Legislative Caucus.

Fourteen groups' representatives testified at the Bronx-Lebanon Hospital Center. They all came with a myriad of statistics and stressed the need for better education to change diet patterns among many Latinos and blacks.

Some of the statistics introduced at the hearing were striking.

- The rate of diabetes among Puerto Ricans is more than twice that of the general population.
- Diabetes kills 30 to 50 percent more black people than white.
- Blacks have one and a half to two times as many strokes than whites and three to five times more heart failures.
- The prevalence of hypertension in the black population is 50 percent higher than in the white one.

Dr. Kathie Rones of the Bronx-Lebanon Hospital Center, one of the witnesses at the hearing, sees people like Brumilda Vega every day. "I meet people like her all the time," she said. "She could make simple changes (in her diet) that could have a big impact on her life."

Vega was not at the hearing but was interviewed later. She said she has improved her eating habits. "I take care of myself better now. I don't skip meals too often, and during the summer I eat a lot of fruits."

Obesity, which is more common among black and Hispanic women than white, is a major risk factor for the development of hypertension, diabetes, hypercholesterolemia and heart disease. All doctors and dieticians who testified told the task force that efforts have to be made to encourage Hispanics and blacks to eat less and better.

"Prevention costs pennies compared to new medical technology and can help minimize more costly health care services," said Jane Levine of the New York State Dietetic Association.

**CLOSEUP**

Health care for heart disease costs an estimated $7 billion a year in New York State, said Donna Ziemba of the East Harlem Healthy Heart Program, a program that seeks to prevent heart diseases.

The unavailability of nutritious food at a low cost in disadvantaged neighborhoods was listed as a major concern by some witnesses.

For example, a bodega next to the hearing site mainly sells canned food and on a recent visit offered no skim milk and no low-fat cheeses.

"Within the Bronx, the health conscious person needs to travel 30 to 40 minutes by bus to get to a supermarket," said Wahida Karmally of the American Heart Association. She said that prices are frequently 20 to 30 percent higher in smaller grocery stores.

Another problem, said Karmally, is using food stamps to buy cigarettes, candy and sometimes drugs. "People who receive food stamps are not instructed in good nutrition," she said. "They are allowed to buy anything edible."

She recommended that the task force increase research into minority health issues and include nutrition education within the food stamps programs.

Among other recommendations she and others made to the task force:

- Incentives for bodegas to stock low-fat products, fruits and vegetables.
- Cooking demonstrations in churches, supermarkets or where they may be the most effective.
- Training of more black and Hispanic dieticians.
- Change zoning regulations to encourage supermarkets to establish themselves in poor communities.
- Educational literature, written simply in Spanish and Creole. Public service messages on radio and television to promote healthy eating.
- Increase funding to expand prevention efforts such as the Healthy Heart Program.
- Include nutrition as part of the school curriculum.

"There is no greater crime than denying someone their health," said Assemb. Davis. "The government is an accomplice in this crime and we need some changes. We need more money and more health and nutritional programs . . . We can't ignore the problem."

NY Daily News 1994

# World's Poor Youths Facing Western Maladies

GENEVA, Sept. 23 (AP) — Children in developing countries, still suffering from malnutrition and disease, increasingly face Western-style health problems like those caused by tobacco and junk food, experts said this week at a World Health Organization conference.

The organization sponsored the weeklong conference on the health of the world's billion schoolchildren.

Experts from six countries — the United States, Britain, China, Bahrain, India and Kenya — agreed that there were no quick solutions to traditional health problems associated with poverty in developing countries, like malnutrition and worms. They urged better health education.

There was some good news. Thanks to an improvement in living standards, 2.5 million fewer children will die in 1996 than in 1990, according to United Nations figures.

But even in richer countries, the situation is increasingly grim.

Dr. Lloyd Kolbe of the United States Centers for Disease Control and Prevention said that "violence and suicide are increasing" among American youth.

"Tobacco use is relatively stable," he said. "Teen-age pregnancy rates are stable but still exceedingly high. Obesity is increasing."

Problems like those threaten to spread to developing countries, where they would join the traditional ailments that threaten children.

"In urban areas we are getting the problems of the West — drugs, sexual experimentation and fast food like chocolate and soda," said Indu Capoor, a health activist from India.

Mr. Capoor said adolescent problems in India, including depression and suicide, have accelerated in the last two years with the arrival of MTV and other satellite stations that spread Western culture.

Experts said foreign television was bringing foreign problems elsewhere as well.

"We are seeing that kids are copying what they see on television in terms of violence, drug abuse and sexual experimentation," said Dr. David Nyamwaya of the African Medical and Research Foundation in Kenya.

W.H.O. officials said traditional diseases still outweighed the new threats as a danger to children's health.

Dr. Kolbe said that in the West, increasing suicide rates were a major concern. In the United States during the last decade, the rate has increased by 75 percent for the ages 10 to 14.

In developing countries, tobacco-related deaths are likely to increase greatly because of a growing number of young smokers, W.H.O. said, adding that too little is being done in schools to counter the lure of glamorous tobacco advertising.

Increased teen-age sex is spreading diseases among youths in the United States, Dr. Kolbe said. The percentage of sexually active 15- to 18-year-olds, as reported by health officials, doubled between 1970 and 1990 to about 54 percent.

Sexually transmitted diseases like herpes, chlamydia and AIDS are spreading rapidly in the United States and throughout the world. Of the 6,000 people infected each day with the AIDS virus, more than half are adolescents, W.H.O. said.

Guide to Health & Fitness

The Resident August 1998

# Healthy Minutes

*Sometimes It's the Little Things that Make a Big Difference to Our Health*

**by Dr. Steven Margolin**

The most common questions people have concerning their health revolve around their eating habits and dieting. Here are some simple bits of information to assist you in making healthier choices.

1. A craving fed in moderation will not hurt your shape or your health. You can enjoy a small indulgence and still keep your daily fat and calorie counts within healthy limits if the rest of your diet is low in fat. In fact, it's actually therapeutic for women to feed their premenstrual cravings. Studies at the Massachusetts Institute of Technology found that women who satisfied their cravings for carbohydrates tended to feel calmer, more alert and had more energy — the result of triggering certain chemicals made by the brain. Of course, you don't need a dozen donuts to get the benefit. Low-fat carbohydrates like cereals, pretzels or breads can do the trick.

2. As for crash diets, don't do them! Crash diets can literally starve your brain. Psychologists at the American Institute of Food Research asked 100 women to perform memory tasks when they were dieting and when they weren't. When calorie deprived, women were distracted and inattentive. The logical explanation is that dieters direct all of their attention to food avoidance and ignore other tasks at hand. Scientists suspect this happens because crash dieting affects a brain chemical called serotonin, which is responsible for alertness. The effect is only temporary and normalizes when proper eating is resumed.

3. If you are trying to shed those extra pounds you put on over the winter months, it may be wise for you to dine early, stay calm and cut calories in moderation. Recent studies have turned up the following: men under stress eat less; women under stress eat more, particularly sweet or bland foods. It is also true that soft, low music playing during a meal will slow your chewing, helping you feel satisfied with less food. Calories consumed earlier in the day are actually burned off more rapidly than those consumed later in the evening. Calories consumed between midnight and 2 a.m. are burned slowest. When cutting back in quantities of food, do so slowly. Your body will respond to a large drop in caloric intake by trying to conserve energy.

4. Mental health professionals have been paying more and more attention in recent years to the growing phenomenon of eating disorders, which include anorexia, bulimia and compulsive eating. Now it appears that increasing numbers of children are being affected by our nation's obsession with the pursuit of thinness. A recent national survey indicated that more than 40 percent thought they were too fat or needed to lose weight. Almost a third of these children had attempted to lose weight, a significant number of them by fasting, vomiting or taking diet pills or diuretics. Any of those practices can have terribly negative effects on the health of developing kids. If your child is overweight, try to concentrate more on building their self-esteem rather than on losing the excess weight. A consultation with a nutritionist can assist parents in learning how to support their children by changing eating habits.

5. How bad are children's eating habits? When nutrition scientists from Cornell University asked 2,000 second and fifth graders to name everything they had consumed during one 24-hour period, more than half had diets that the researchers graded poor. Most of the diets included more than twice the intake of fat recommended. The most popular items included pizza, macaroni and cheese and ice cream. More than half the kids failed to meet the "five a day" fruits and vegetable recommendation. 20 percent ate no fruits at all, 15 percent didn't touch a vegetable and 40 percent chose only nutrient-poor versions such as french fries and tomato sauce. Action must be taken by parents to concentrate less on the quantity of the food their kids eat and more on the quality.

> *A survey indicated most children's diets included more than twice the intake of fat recommended . . . the most popular items included pizza, macaroni and cheese and ice cream.*

6. Did you know that the average American consumes 130 pounds of sugar each year? A large part of that comes from the soft drinks that we ingest. Each 12 ounce can of soda has 9-12 teaspoons of sugar. High-fructose corn syrup accounts for 52 of the total pounds consumed. Researchers with the United States Department of Agriculture have found that high intake of high-fructose corn syrup sweeteners can leave a person with a weaker defense system against cancer and disease-causing free radicals. The solution: Stop drinking soft drinks and start drinking bottled or purified water. It's better for you and won't cause cancer.

7. After all this talk on eating and dieting, let's not forget that walking has been proven to be one of the best things that you can do for your health. Studies have shown that regular walking has a positive influence on keeping blood pressure at normal levels. Walking has also been proven in some cases to increase HDLs or "good cholesterol" levels. Individuals who walk fast enough to get their heart rate into the training zone can improve their energy while placing less stress on bones and joints than other forms of aerobic activities. It can be done anywhere, at anytime, at virtually no cost, and the likelihood of injury is lower than almost any other exercise. ■

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# Being Fat Is as American as, Well, Apple Pie

To the Editor

How amazing that you publish a comprehensive article on American fat people ("The Burdens of Being Overweight: Mistreatment and Misconceptions," front page, Nov. 22) and never once mention American food, which is unique in the world.

Visitors from abroad are struck by the rampant obesity. And they all complain of weight gain when they come to America. I've been here one month and have gained five pounds. There are four reasons why America's fat problems are worse than elsewhere.

(1) The food is denatured, frozen, freeze-dried, canned, cooked ahead and microwaved. Processing destroys crucial elements available from fresh food, and the body is not satisfied. Thus, though the food is full of calories, the body craves more.

(2) Sweets and desserts are the best part of the cuisine, but many are unnecessarily rich. Instead of chocolate layer cake, for instance, one finds triple-fudge-killer-cake, embellished with whipped cream, chocolate sauce and nuts.

(3) The portions are Brobdingnagian. In France, if you order a Coke you get a tiny, six-ounce bottle, which you nurse for 45 minutes. But in Mall Town, U.S.A., a "small Coke" is easily a liter; as for the "extra-large," don't ask! In Spain, if you order a steak you get no more than eight ounces. I'll never forget the place in Kansas City where the slice of roast beef was bigger than the plate!

(4) In the consumer society, junk food is everywhere, beckoning. Unhealthy temptations just don't quit.

The solution, of course, is to follow Miss Piggy's advice and never eat more than you can lift.

Your article was one of many in the current vogue for turning people into victims. It's too bad fat people are the butt of rudeness. It's too bad there aren't more people of good breeding who know better than to offend people who don't conform to the "normal."

But still, it's a question of personal responsibility. Fat people are victims of themselves because they ignore sound nutritional practices and allow themselves to be suckered in by "the culture." If not, why is this a peculiarly American phenomenon? SYLVIA SIMPSON GENSKE

West Palm Beach, Fla., Nov. 23, 1992

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## 5 HEALTHY HABITS FOR KIDS

It's never too late to adopt healthy habits, but it's never too early either. With this in mind, American and British health professionals recommend that tests such as cholesterol screening begin in childhood. It's surmised that one-fifth or more of children aged 3 to 18 have shockingly high cholesterol levels, which can be linked to heart disease.

Premature clogged arteries aren't the only reason to sound the test-for-fat alarm. Most unhealthy practices begin in adolescence or younger. Educating kids about eating, exercising and embracing a life-style that invites wellness may spawn a generation that lives with vitality to a ripe old age. ■

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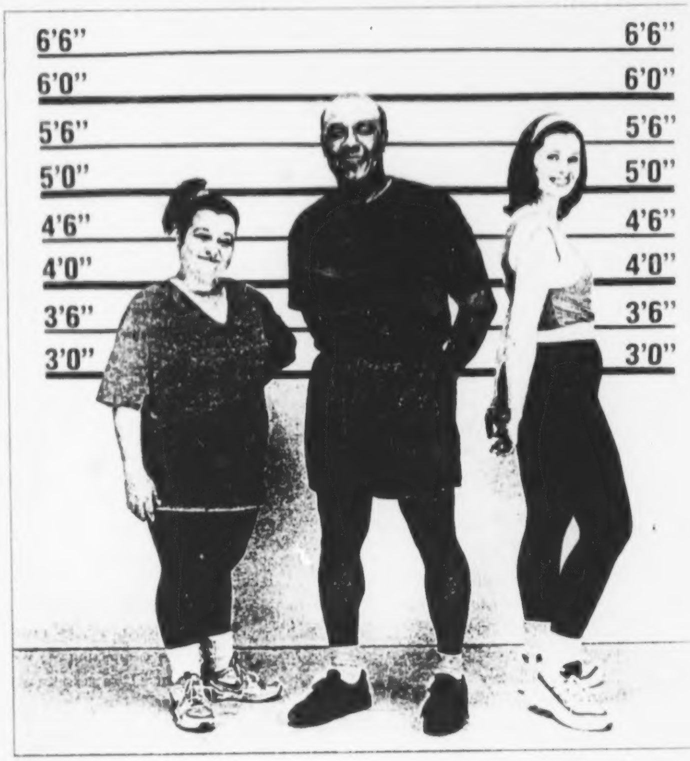
* Sources not available

# Why we need a new war on WEIGHT

**3 out of 4 Americans weigh too much. 300,000 die each year because of obesity. It's time for America to face facts and make sweeping changes in attitude, says the author of a tough new book, *The Fat of the Land.***



COVER AND COVER STORY PHOTOGRAPH BY KAI CHERNUSH FOR USA WEEKEND

**LISTEN CAREFULLY.** You can almost hear it. The sound of zippers tearing, buttons popping, Spandex expanding. America is getting fatter by the day. We may soon see our beloved Stars and Stripes replaced by a yellow flag declaring "Extra Wide Load."

Americans as a whole have gained about 12 pounds in the past decade. According to the old definition of obesity, whereby you had to be 20 percent overweight, a third of all Americans are obese. But on the basis of new medical evidence that anything over your ideal weight is unhealthy, almost three-fourths of American adults are too fat.

It's "a 25 percent increase in six years," says former surgeon general C. Everett Koop. "We just can't afford to go on like that. ... If I had stayed on longer [in office], I would have launched the same assault on obesity that I did on smoking."

It is my belief, after two years of researching this topic for my new book, *The Fat of the Land,* that yes, Americans must attack obesity in the same way we did smoking, when the number of smokers was cut in half.

**FIRST, FACE FACTS.** Obesity is a terrible problem and, unlike other epidemics, such as a flu epidemic, it won't go away on its own.

### GIRTH OF A NATION

**How many Americans are overweight?**

| | |
|---|---|
| 1986 | 59% |
| 1987 | 59% |
| 1988 | 64% |
| 1989 | 61% |
| 1990 | 64% |
| 1991 | 63% |
| 1992 | 66% |
| 1994* | 69% |
| 1995 | 71% |

* No survey for 1993

Source: Louis Harris & Associates

**Weights around the world**

| | |
|---|---|
| North America | 162 |
| Southern Europe | 156 |
| Eastern Europe | 150 |
| Western/Central Europe | 147 |
| Northern Europe | 146 |
| South/Central America | 145 |
| Africa | 137 |
| Asia | 128 |

Average weight (in pounds) of 5-foot-4 men and women

Source: Per Bjorntorp and Bernard N. Brodoff, eds., Obesity

Some would have us believe that there is nothing wrong with being fat, that people just find it distasteful and therefore assume it's unhealthy. Actually, doctors believe fat is unhealthy because a multitude of studies for decades has shown it to be so.

"We know," Koop says, "that excessive weight fosters everything from diabetes and heart disease to breast cancer, colorectal cancer and osteoarthritis."

A recent University of Wisconsin study found a direct correlation between extra weight and increased breast cancer in women. Another study, at Brigham and Women's Hospital in Boston, found that women 44 pounds overweight had 2.5 times the chance of developing common strokes. Obese people are less likely to survive surgery. They are more likely to develop cataracts, arthritis, gallstones.

According to the World Health Organization, 300,000 Americans die prematurely each year because of obesity. Among lifestyle-related illnesses, only cigarette smoking (an estimated 400,000 deaths) has a higher toll. But smoking deaths are declining, while obesity deaths will continue to climb as long as obesity does. Meanwhile, adolescent obesity has jumped 40 percent in a little over a decade.

Americans are the fattest people in the industrial world *(see box above).* We eat too much. We get too little exercise. We never run out of excuses for both. To name a few:

- "It's all in my genes" or "I have a slow metabolism." A few

## By Michael Fumento

Fumento is author of the new *The Fat of the Land: The Obesity Epidemic and How Overweight Americans Can Help Themselves* ([illegible], $2[illegible]). Previous books: the controversial *The Myth of Heterosexual AIDS* (1990) and the award-winning *Science Under Siege* (1993). He is a University of Illinois College of Law graduate and has been an AIDS analyst, a U.S. Commission on Civil Rights lawyer and a medical journalist for [illegible] years. He is now a fellow at the American Enterprise Institute, a conservative think tank. You may contact Fumento with questions or comments at AEI's Web site [illegible].

## 10 REAL WAYS TO LOSE WEIGHT

In researching his book, Fumento pored over thousands of articles in medical journals to find what works and doesn't. His top 10 conclusions.

**Lose slowly.** It improves your chance of not seeing weight come roaring back.

**Low-fat is NOT the answer.** Nothing is making us fatter than the "low-fat/no-fat" fad. Many studies have shown that, for practical purposes, 1 calorie of fat is no worse than 1 calorie of protein or carbohydrate. Because we've been lulled into believing low fat is better, we eat far more food than we otherwise would.

**Reduce sugar.** Americans consume 150 pounds of sugar and corn sweeteners per person per year, 33 pounds more than 20 years ago.

**Pump fiber into your diet.** It fills you up and speeds food through your body, cutting calorie consumption.

**Portion control is vital.** Let appetite dictate consumption, not package sizes, restaurant portions or what others eat.

**Calories are ALL that count.** (Many will disagree.) Don't obsess over each one, but do eat only small portions of high-calorie stuff.

**Cut out little things.** Say you drink a 280-calorie bottle of juice five days a week. Drink water instead to cut 73,000 calories (18 pounds) a year.

**Exercise.** There's a clear connection between regular vigorous exercise, losing weight and keeping it off.

**Turn off the TV.** Watching fattens you, studies show.

**There is no weight-loss magic.**

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tudies have shown some people are enetically disposed to burn calories nore slowly. But this difference ranges rom one-fourth to three-fourths of a ingle can of non-diet soda daily. Further, enetics hardly explains why Amerians are so much fatter than Euroeans, or why we get fatter by the year.

■ "You can be fat and healthy." Yes, ou can be relatively healthy for a fat erson — or relatively healthy for somene with AIDS, for that matter. Obesity ttacks your body in ways that won't ecessarily show up in a cholesterol r blood pressure test. Among such ssaults often not detected until too ate are the cancers linked to obesity, ays obesity specialist G. Ken Goodick [illegible] the Baylor College of Medicine n Texas. Among these are not just reast cancer, but cancer of the colon, ectum, prostate, gallbladder, cervix nd ovaries. Yes, some obese people may live long ives, but so do some heavy drinkers and smokers.

■ "It's OK. I'm a 'pear,' not an 'apple.'" This refers to whether fat is stored below the waist (this pear shape s commonly thought to be safe) or in the abdomen (this apple shape is said to promote heart disease). But recent research shows this may not matter nearly as much as has been thought. Moreover, as a person ages, fat tends to shift up, turning "pears" into "apples."

■ "I only ate a muffin — and it was low-fat." Probably nothing has done more to make America the Land of the Fat than the low-fat/no-fat fad and the incredible growth of portion sizes. Study after study has shown that hips, thighs and bellies couldn't care less whether calories are from fat, carbohydrates or protein. Only calories count. Part of the confusion is because foods naturally low in fat, like vegetables, fruits and grains, are also usually low in calories and very satiating. But that low-fat banana muffin eaten this morning was packed with so much sugar it had more calories than eight bananas. And far better to eat one satisfying cookie teeming with fat than half a box of no-fat, high-sugar ones that taste like chocolate-flavored Styrofoam.

Portion sizes have exploded; muffins now are many times larger than just a few years ago. The original Coca-Cola bottles meant for individual consumption contained 6.5 ounces. In Europe, they're still around 8. In the USA, machines now dispense 20-ounce soda bottles, while convenience stores routinely dispense 64-ounce buckets of drink — 10 times the original serving size.

■ "It's useless trying to lose weight; after all, 95 percent of dieters just put the pounds back on." That figure applies only to people in certain government studies of dieters who repeatedly failed in the past. Everywhere there are people who have taken off large amounts of weight and kept it off, including your humble writer, who lost all his excess weight (25 pounds) and has kept it off two years.

**SECOND, CHANGE SOCIETY'S VALUES.** Long before waistlines began to balloon, we began to build a society that promotes values that themselves promote obesity.

"This population-wide problem" of obesity, says Northwestern University's Jeremiah Stamler, M.D., "is best comprehended as a *societal* problem."

"The root of the problem," according to the respected Institute of Medicine, "must lie in the powerful social and cultural forces that promote an energy-rich diet and a sedentary lifestyle."

## "We must attack obesity in the same way we did smoking."

One of these forces, in my view, is the victimization fad, in which everything wrong in our lives is the fault of someone or something else. I'm not to blame for being obese; I must have a slow metabolism. It's the restaurant's fault I ate a portion big enough for the "star" of the *Jurassic Park* sequel. Nobody's arguing it should be illegal to be so enormous that, like chef Paul Prudhomme, you can't get around without an electric scooter. But neither should it be seen as a choice on par with picking a Ford over a Chevy.

Moderation and setting limits could work. "If social and cultural forces can promote obesity, these same forces should be able to control it," concludes the Institute of Medicine.

This doesn't mean "oppressing" fat people. Rather, it means combating that which pushes us in the direction of fatness. On top of the barrage of health warnings and limitations on tobacco advertising, our society made smoking uncouth, nasty, inconvenient. "Thank you for not smoking" became a common demand. No one took away the right to smoke; society took away the right not to be embarrassed about it.

*Continued on next page*

## Body Mass Index: Does your weight put you at risk of health problems?

**How they rate:** We calculated each model's "Body Mass Index" using the chart at right, developed by health researchers. Model 1, at 5 feet and 170 pounds, has a BMI of 33. Model 2, 6 feet and 195, has a BMI of 26. The BMI of Model 3, 5-foot-9½ and 175, teeters at 25.5. Scientists have determined that appreciable health risks begin at a BMI of 25, so all three models are above their optimal weight for health, however slightly in the case of Model 3.

**▶ How you rate:** To determine your BMI, find where your height and weight intersect on the chart. (Or multiply your weight in pounds by 705, divide by your height in inches, then divide again by your height in inches.) What the scores mean:

☐ 24 or under: Minimal health risk
☐ 25-29: Low to moderate risk
■ 30 or over: High risk

| | Weight | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Height | 110 | 115 | 120 | 125 | 130 | 135 | 140 | 145 | 150 | 155 | 160 | 165 | 170 | 175 | 180 | 185 | 190 | 195 | 200 | 205 | 210 | 215 | 220 | 225 | 230 | 235 | 240 | 245 | 250 |
| 5'0" | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 5'1" | 21 | 22 | 23 | 24 | 25 | 26 | 26 | 27 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 5'2" | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 27 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 5'3" | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 27 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 5'4" | 19 | 20 | 21 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 27 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 5'5" | 18 | 19 | 20 | 21 | 22 | 22 | 23 | 24 | 25 | 26 | 27 | 27 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
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| 5'7" | 17 | 18 | 19 | 20 | 20 | 21 | 22 | 23 | 23 | 24 | 25 | 26 | 27 | 27 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 5'8" | 17 | 17 | 18 | 19 | 20 | 21 | 21 | 22 | 23 | 24 | 24 | 25 | 26 | 27 | 27 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 5'9" | 16 | 17 | 18 | 18 | 19 | 20 | 21 | 21 | 22 | 23 | 24 | 24 | 25 | 26 | 27 | 27 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 5'10" | 16 | 17 | 17 | 18 | 19 | 19 | 20 | 21 | 22 | 22 | 23 | 24 | 24 | 25 | 26 | 27 | 27 | 28 | 29 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 5'11" | 15 | 16 | 17 | 17 | 18 | 19 | 20 | 20 | 21 | 22 | 22 | 23 | 24 | 24 | 25 | 26 | 26 | 27 | 28 | 29 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 6'0" | 15 | 16 | 16 | 17 | 18 | 18 | 19 | 20 | 20 | 21 | 22 | 22 | 23 | 24 | 24 | 25 | 26 | 26 | 27 | 28 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 6'1" | 15 | 15 | 16 | 16 | 17 | 18 | 18 | 19 | 20 | 20 | 21 | 22 | 22 | 23 | 24 | 24 | 25 | 26 | 26 | 27 | 28 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 6'2" | 14 | 15 | 15 | 16 | 17 | 17 | 18 | 19 | 19 | 20 | 21 | 21 | 22 | 22 | 23 | 24 | 24 | 25 | 26 | 26 | 27 | 28 | 28 | 29 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 6'3" | 14 | 14 | 15 | 16 | 16 | 17 | 17 | 18 | 19 | 19 | 20 | 21 | 21 | 22 | 22 | 23 | 24 | 24 | 25 | 26 | 26 | 27 | 27 | 28 | 29 | 29 | [illegible] | [illegible] | [illegible] |
| 6'4" | 13 | 14 | 15 | 15 | 16 | 16 | 17 | 18 | 18 | 19 | 19 | 20 | 21 | 21 | 22 | 23 | 23 | 24 | 24 | 25 | 26 | 26 | 27 | 27 | 28 | 29 | 29 | [illegible] | [illegible] |

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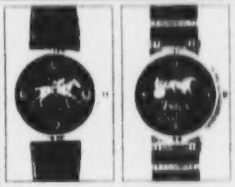

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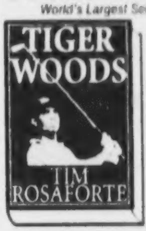

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## THE OTHER SIDE: "For millions, this approach will be a great disservice"

- "It's true that overweight and obese individuals can benefit from improvements in their diet and exercise patterns," says Michael Steelman, president of the **American Society of Bariatric Physicians.** (Bariatrics is the study of obesity.) "However, Fumento's view seems simplistic and denies a plethora of medical evidence. For people with minor weight problems his suggestions may be fine, but for millions of obese individuals this approach will be a great disservice. Very few obese individuals are able to reduce to their 'ideal' weight. Obese people need to be directed toward improving their health, not pushed toward a mythical ideal weight."
- "To encourage stigma against fat people is size-ist," says Sally Smith, executive director of the **National Association to Advance Fat Acceptance.** "We have to separate weight loss from health issues. What message does it send that no matter what changes I make in my lifestyle, if it doesn't result in weight loss, I'll drop dead? I just turned 39. I'm fine."

— *Cesar G. Soriano*

*Continued from previous page*

But America isn't fighting obesity. It's adjusting to the problem — indeed, institutionalizing it. A generation ago, physical education was almost universally mandatory. But by 1995, only 25 percent of high school students had mandatory phys ed.

It used to be that no food maker in its right mind would use a fat person to advertise its products. Now Wendy's runs ads about a "Big Eaters Club" in which everyone is obese — and nobody cares.

Manufacturers are doing everything possible to make being fat as easy as possible. From subways to stadiums, seats are becoming bigger to accommodate bigger bottoms. Clothing makers change their sizes to flatter buyers, and sales of euphemistically labeled "women's" clothes are growing twice as fast as sales of other apparel. The newest trend: stores catering to obese kids, such as the "Pretty Plus" line at Sears. Generation X is fast becoming Generation X-Large.

Society could learn to sneer at calf-sized steaks, sodas that could float a battleship and chocolate syrup ads that say "just pour it on" because, though it has 50 calories per tablespoon, "it's virtually fat-free."

Saying obesity is a societal problem in no way gets individuals off the hook. Yes, we live in a nation that is a conveyor belt to fatness. But some of us have gotten off, and all of us have an obligation to try, not just for own sake but to save the lives of our children and other family members. Like smoking, drug abuse and violence, obesity is a socially contagious disease. The more you have, the more you get. Even taking genes into account, fat parents are more likely to have fat children. Research shows that if you improve your eating and exercise habits and lose weight, there's an excellent chance other members of your family will, too.

**HEALTH CAN PREVAIL.** Health and safety campaigns often fail but they can succeed if efforts persist year after year.

For example, seat-belt use steadily rose even before many states made it the law; the number of smokers has dropped by half; illegal use of hard drugs and hard liquor has dropped among adults. Americans have significantly lowered their cholesterol intake.

Obesity may be the toughest beast to slay. But after all, if we can put a man on the moon, surely we can get through doorways without greasing down our sides. ■

I. The Early "Hunting and Gathering Diet

For 4½ million years human beings lived mostly in small groups or tribes. They depended on hunting and gathering of roots, berries, wild grasses, eggs, nuts, and sometimes honey for their food. While these people did not live as long as we do, because they often died of diseases modern medicine can control, it seems they did not suffer from as much cancer, heart disease, diabetes or obesity, conditions aggravated by our modern diet.

II. Farming

Gradually these small tribes began to experiment with farming and growing of their own vegetables. This led to more people settling and living in one place. Cities developed as this happened. People's diets were quite similar to the hunting and gathering diet, but there was more variety. Dairy products and bread began to be eaten. As trade developed, foods from other areas were introduced in different environments. Farmer's diets, although higher in fat (because of more meat and dairy products) were relatively healthy and again, people did not die from the diseases of the modern diet.

III. The Modern "Western" diet.

The farming diet is still the diet of many cultures around the world where farming is still practiced (South America, India, Asia, Africa). However, around 1900, as the machinery to process and package food developed in America, and as more and more people began to move to cities, many peoples' diets began to change. Rather than growing and eating one's own fresh foods, people started buying canned and processed foods in grocery stores. Business people realized there was a lot of money to be made by manufacturing tasty foods with catchy names and advertisements that made people want to buy them. Salty and sugar sweetened foods are very addictive--they make you want more--, so gradually many foods began to contain these ingredients because people would want to purchase more which meant more money for the businesses.

Today many nutritionists and doctors believe our diet is the cause of tooth decay, many diseases such as cancer, heart disease, diabetes, and the high percentage of obesity in our country and in other countries that eat like us. They think we eat too much fat, cholesterol, sugar, caffeine and salt in our processed, fast, and junk foods. Not enough people pay attention to nutrition but rather let advertising influence what they choose eat.

L. Tiede

Coronary Heart Disease (CHD) is the number one cause of death of American adults today, taking over one-half million each year. About 5 million Americans suffer from overt symptoms of CHD, and countless others have CHD, but don't realize it. For many, the first indication they have this disease is a heart attack, which is fatal one out of three times. Besides its toll on well-being and quality of life, CHD cost about 85 billion dollars in 1987 in medical care and related costs.

## ALTERING OUR DIET

Scientists have shown that the high fat, particularly saturated fat, high cholesterol diet Americans consume contributes to elevated blood cholesterol and thus increases risk for CHD. They have also shown that elevated blood cholesterol can be reduced, dramatically by reducing saturated fat and cholesterol intake, and that when blood cholesterol levels decline, the risk of heart attacks also declines. So health professionals recommend lowering the intake of total and saturated fat and cholesterol to reduce blood cholesterol levels and risk for CHD.

This table shows how much fat and cholesterol Americans eat today compared to how much public health organizations recommend Americans consume to reduce CHD risk. Reducing total fat intake from 40 to 30 percent of total calories should be accomplished largely by reducing saturated fat intake.

### FATS (% OF TOTAL CALORIES)

| | total | saturated | unsaturated | cholesterol mg per day |
|---|---|---|---|---|
| Current American intake | 40 | 15-20 | 20-25 | 450-500 |
| Recommended intake (no more than) | 30 | 10 | 20 | 300 |

American Heart Association, [illegible]

What do these recommendations mean in terms of specific food changes? They mean cutting down on foods high in saturated fat and cholesterol.

This table lists foods which are sources of saturated fat and cholesterol. Foods of animal origin, such as meat, full fat dairy products, and eggs, tend to be high in one or both of these; however, these foods are also excellent sources of many nutrients, such as protein, iron, zinc, calcium, and B vitamins. So it's important not to totally eliminate them from the diet, just choose them less frequently, use smaller portions, or select low fat or skim varieties.

### SOURCES OF SATURATED FAT AND CHOLESTEROL

**Foods Providing Saturated Fat**
- red meat, especially fatty or well-marbled cuts
- full fat dairy products, such as whole milk, butter, cream cheese, hard cheeses and ice cream
- fatty luncheon meats, such as salami, and sausages and bacon
- hard shortenings, lard, beef tallow, palm oil, coconut oil and foods such as desserts and pastries made with them

**Foods Providing Cholesterol**
- egg yolks
- organ meats such as brains, sweetbreads, and liver
- meat, poultry, fish, seafood
- full fat dairy products

**Did you know . . . ?**
- ounce for ounce, poultry and fish provide just about as much cholesterol as red meat such as beef or lamb. Poultry and fish, however, are recommended in diets to lower blood cholesterol levels because they are low in saturated fat, while red meats are higher in saturated fat.
- many home-prepared baked goods containing eggs can be made lower in cholesterol by substituting an egg white for an egg yolk.
- only foods of animal origin, such as meat, milk and eggs, contain cholesterol. Vegetables, fruits, and grains do not contain cholesterol.
- most vegetable oils, such as corn, soybean, olive, and safflower, are rich in unsaturated (monounsaturated and polyunsaturated) fats, and may be used in moderation in diets to lower blood cholesterol level.
- tropical vegetable oils, such as palm, palm kernel, and coconut, are rich in saturated fats, and should be used sparingly in diets to lower blood cholesterol level.

**Other tips for lowering saturated fat and cholesterol intake** include:
- subsitute low fat or skim milk dairy products for full fat dairy products
- choose low fat, low cholesterol breakfasts such as ready-to-eat cereal and skim milk
- choose lean cuts of meat and trim all fat from the edges; remove skin and fat from poultry
- grill or broil meats over a drip pan so the fat can escape
- limit egg consumption to 2-3 per week; this includes eggs incorporated into recipes
- limit portions of meat, poultry, or fish to a piece about the size of a deck of cards
- limit consumption of baked goods made with butter or solid shortening, such as croissants, doughnuts, and other pastries
- limit consumption of fried foods
- cool soups and stews and skim the hard fat layer off the top

Besides reducing fat and cholesterol intake, there are other dietary changes which can reduce risk of CHD. These include choosing more frequently foods rich in complex carbohydrates, such as breads, cereals, fruits and vegetables. Besides being low fat and cholesterol free, these foods are rich sources of many nutrients and fiber. Some of these foods, such as oat bran and products made with oat bran, may actually help reduce blood cholesterol.

Since obesity can contribute to elevated blood cholesterol and elevated blood pressure, it's important to adjust the total amount of food eaten to attain or maintain ideal body weight. Limiting consumption of high calorie foods which provide few nutrients, such as desserts, colas, chips, and candy, is one of the sensible ways to control weight without compromising the nutritional adequancy of the diet. A gradual weight loss of 1 to 2 pounds per week can be achieved by cutting out 500 to 1,000 calories from the diet each day. And when body weight is reduced, even by just a few pounds, blood pressure tends to go down, too.

## Cancer Deaths

More than a half-million Americans will die of cancer this year. Here's a breakdown of *which* of the most common cancers are expected to kill *how many* men and women in 1993.

| MEN | | WOMEN | |
|---|---|---|---|
| Lung | 93,000 | Lung | 56,000 |
| **Prostate** | 35,000 | **Breast** | 46,000 |
| **Colon & Rectum** | 28,800 | **Colon & Rectum** | 28,200 |
| Pancreas | 12,000 | Ovary | 13,300 |
| Lymphoma (lymph system) | 11,500 | Pancreas | 13,000 |
| Leukemia (blood) | 10,100 | Lymphoma (lymph system) | 10,500 |
| **Stomach** | 8,200 | Uterus | 10,100 |
| **Esophagus** | 7,600 | Leukemia (blood) | 8,500 |
| **Liver** | 6,800 | **Liver** | 5,800 |
| Brain | 6,600 | Brain | 5,500 |
| Kidney | 6,500 | **Stomach** | 5,400 |
| Bladder | 6,500 | Multiple Myeloma (bone marrow) | 4,600 |

Diet-related cancers are in **bold** type.

*Source: American Cancer Society*

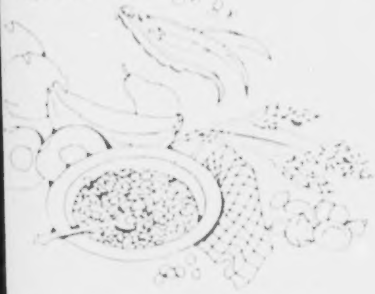
* Sources not available for all

# GUIDE TO LOWERING CHOLESTEROL

## Low-fat cooking and food preparation suggestions:

- Purchase Teflon or other non-stick cookware.
- Trim visible fat off meat before cooking.
- Broil, bake, or boil rather than fry.
- Cook meat or poultry on a rack so the fat will drip off.
- Steam, boil, or bake vegetables, or for a change, try stir-frying in a small amount of vegetable oil.
- When preparing broth or soups, chill meat or poultry broth until fat becomes solid, spoon off the fat before using the broth.
- Use a lecithin spray, such as Pam or Mazola No Stick, to grease your pan.
- Use wine when cooking meats, soups, and sauces. Most of the alcohol cooks off.
- Add low-sodium broth instead of oil.

Many delicious foods naturally contain little or no fat, saturated fat or cholesterol. These include fruits and vegetables, breads and starches, grains, pasta, dried peas and beans and starchy vegetables.



*Thanks to Carolyn Cohen, M.S., R.D., Rita River, M.S., R.D., HIP Medical Center nutritionists for their assistance.*

| | Protein | Milk Products | Fruits/Veg. | Starch/Breads | Fats/Oils | Desserts/Snacks |
|---|---|---|---|---|---|---|
| **Choose these foods** | Fish, Legumes, Poultry, Meats<br>Limit animal protein to 5-6 oz/day. A serving size of 3 oz. cooked is the size of a deck of cards<br>Shellfish, fresh, frozen, or canned in water<br>Poultry, cooked without skin<br>Lean beef<br>Veal, loin, round or shoulder<br>Cold cuts with less than 2 grams fat per ounce<br>Dried beans and peas<br>Egg whites or egg substitutes | Lowfat (1%) or skim milk<br>Lowfat (1%) or nonfat yogurt<br>Lowfat (1%) cottage cheese<br>Lowfat cheeses with less than 3 grams fat per ounce<br>Other lowfat cheeses (pot, farmer)<br>Dry skim milk or condensed skim milk | All varieties: fresh, frozen or canned | Choose these foods:<br>Enriched or whole grain bread, cereal, crackers, less than 2 grams fat/serving<br>Grits, pasta, potatoes, rice, homemade biscuits and muffins (low fat) | If overweight, 2 tsp./day<br>If normal weight - up to 6 tsp./day<br>Soft tub margarine, liquid, oil, or water as first ingredient<br>Vegetable oils - corn, canola, olive, safflower, sesame, soybean, sunflower<br>Vegetable sprays from allowed oils, Molly McButter, Butterbuds<br>Mayonnaise<br>Salad dressing<br>Nuts: All except as noted<br>Seeds: Pumpkin, sesame, sunflower | Limit if overweight.<br>Ices and frozen fruit bars<br>Frozen yogurt and tofu desserts, less than 2 grams fat/serving.<br>Pudding made with skim milk<br>Gelatin desserts<br>Angel food cake<br>Meringue<br>Cocoa powder<br>Pretzels<br>Popcorn, air popped, unbuttered<br>Mineral water, soft drinks<br>Jams, jellies<br>Sugar, syrup, honey<br>Hard candy, jelly beans |
| **Instead of these foods** | Fatty cuts of beef<br>Lamb<br>Pork - sausage, pigs feet, salt pork or bacon<br>Most cold cuts<br>Hot dogs<br>Organ meats<br>Egg yolks | Whole milk or 2% milk<br>Sour cream<br>Cottage cheese (4%)<br>Most cheese<br>Butter<br>Cream, heavy, light or nondairy creamer | Commercially prepared with sauces or butter. | Commercially prepared baked goods<br>Croissants<br>Commercially prepared or packaged potatoes, rice, pasta | Butter, lard, fat back, bacon, chicken fat, chitterlings<br>Coconut and palm oils<br>Gravies, meat drippings, ham hocks, chicken fat<br>Hydrogenated oils (shortening)<br>Cream, heavy, light, sour (including imitation)<br>Nuts: brazil, cashew, macadamia, pistachio | Ice cream, ice milk<br>Sherbet<br>Mousse<br>Pie, donuts<br>Cakes, cookies<br>Whipped cream<br>Cocoa mixes<br>Chips and fried pork rinds<br>Packaged microwave popcorn<br>Milkshakes<br>Butter or cream cheese<br>Coconut, chocolate, creams<br>Candy bars |

# CHOOSE THESE FOODS TO CUT DOWN ON SODIUM

| | Dairy | Meats | Vegetables | Breads | Miscellaneous | Snacks |
|---|---|---|---|---|---|---|
| **Choose these foods** | Skim or low fat milk.<br>Salt reduced or low sodium cheeses: Swiss Lorraine, Alpine Lace and unsalted cottage cheese.<br>Low fat yogurt. | Fresh, lean beef, lamb, pork, chicken or turkey.<br>Fresh fish or shrimp.<br>Salt free canned tuna, salmon or sardines.<br>Fresh fish frozen without added salt.<br>Salt reduced Boar's Head or Lil Salt Russer cold cuts.<br>Low sodium canned chili con carne | Fresh, frozen without sauces or low sodium canned vegetables.<br>Salt free tomato or V8 juice.<br>Homemade potatoes: mashed, baked or boiled.<br>Homemade, salt reduced or low sodium canned soup.<br>Homemade from fresh or low sodium canned soup.<br>Homemade from fresh or low sodium canned tomatoes or salt free tomato sauce: Francesco Rinaldi. | Whole grain or enriched breads.<br>Low salt crackers or unsalted bread sticks.<br>Homecooked barley, rice or noodles.<br>Pasta in low salt tomato sauce.<br>All bran, puffed wheat or rice, Product 19, shredded wheat or Nutrigrain cereals.<br>Homemade baked products made with low sodium baking soda or powder.<br>Angel food cake and rice cakes.<br>Long cooking grits, cream of wheat or rice, farina or oatmeal. | Fruit juice, seltzer and salt free soda.<br>Homemade puddings<br>Sodium reduced or homemade salad dressings.<br>Tofu<br>Herb rice prepared without salt.<br>Anne's Pasta brand macaroni and cheese dinner.<br>Homemade dinners made with little or no salt and frozen for use later.<br>Sodium reduced frozen dinners: Healthy Choice, Le Menu Light and Stouffer's Right Course. | Unsalted popcorn, chips or pretzels.<br>Fresh or dried fruits.<br>Unsalted nuts |
| **Instead of these foods** | Buttermilk<br>Cocoa mix.<br>Processed cheese, cheese foods and spreads. | Canned, salted or smoked meat or poultry.<br>* Canned fish: tuna, salmon, sardines or shrimp.<br>Smoked or pickled fish: herring or lox.<br>Cold cuts: ham, bologna, corned beef, pastrami or salami.<br>Canned hash, stew or goulash.<br>Frankfurters or Hot Dogs.<br>Bacon<br>* NOTE: Regular canned tuna or salmon can be used if rinsed in running water for one minute. | Regular canned vegetables and vegetable juices.<br>Frozen vegetables in cheese or butter sauce.<br>Sauerkraut<br>Pickles<br>Instant potato, potato salad or au gratin.<br>Relishes and olives.<br>Dehydrated or canned soups.<br>Tomato sauce or canned tomatoes. | Pizza<br>Salted crackers<br>Macaroni salad<br>Canned ravioli or spaghetti.<br>Dry cereal with sodium contents above 250 milligrams per serving.<br>Cake, biscuit or pancake mixes.<br>Bakery products made with salt, baking powder or baking soda.<br>Instant cooked cereals. | Thirst quenchers<br>Instant puddings<br>Commercial salad dressings<br>Miso<br>Quick flavored rice mixes.<br>Macaroni and cheese dinners<br>Convenience foods: frozen ready made entrees and snacks such as fried chicken, frozen fish fillets, Chinese dinners and many frozen dinners.<br>Fast food meals. | Potato, corn or other salted chips.<br>Pretzels or prepacked popcorn.<br>Salted nuts or snack mixes. |

REMEMBER—ONE TEASPOON OF SALT CONTAINS 2000 MILLIGRAMS OF SODIUM!!!

**Replace the salt in your shaker with your own blends:**

ALL PURPOSE:

1 Tbsp. garlic powder
1 tsp. each of the following ground seasonings: basil, thyme, parsley, savory, onion powder, black pepper, sage

FOR VEGETABLES AND MEAT:

1 tsp. thyme
1 tsp. marjoram
3/4 tsp. rosemary
1/2 tsp. sage

FOR FISH:

3/4 tsp. parsley flakes
1/2 tsp. onion powder
1/2 tsp. sage
1/2 tsp. marjoram
1/2 tsp. paprika

*A Note on Restaurant Foods:*

*Restaurant foods may be high in **salt or** sodium. Use discretion **and choose food** with sauces and dressings on the **side.***

*Tips For Reducing Dietary Sodium*

# SO LONG SODIUM

Most of us eat far more sodium than we actually need for good health. The National Research Council recommends limiting dietary sodium to 1,100-3,300 mg. daily (there are 2,000 mg. in one teaspoon of table salt.) The following tips can help you reduce dietary sodium which may in turn reduce your risk for high blood pressure.

## Season Without Salt

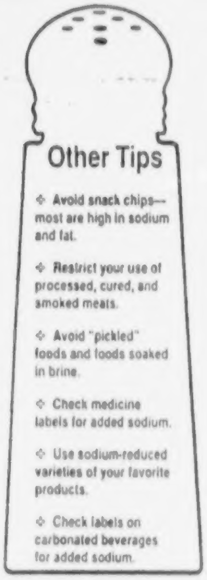
You can begin reducing dietary sodium by putting away your salt shaker. Don't add salt to foods while cooking, and always taste cooked foods before salting. (If you feel you must salt a food, pour a small amount of salt in the palm of your hand and "pinch" on a bit at a time instead of pouring it on liberally.) Gradually reduce the amount of salt you use until you have managed to shake the salt habit. For tastier, healthier food, try flavoring with herbs, spices, lemon, lime, and vegetable-based seasonings.

## Read Package Labels

Much of the sodium in our diets comes from processed foods. In fact, 90% of all processed foods contain sodium. Read package labels carefully for "hidden" sodium. Sodium will be listed by name or by its chemical symbol "Na." The Food and Drug Administration has also approved the following sodium labeling system. *Reduced sodium* means that a product contains at least 75% less sodium than the standard product; *sodium free* means a food contains less than 5 mg. of sodium per serving; *very low sodium* means no more than 35 mg. per serving; and *low sodium* means no more than 140 mg. per serving.

## Sodium-Sensible Diet

If you know that you are sensitive to sodium (if, for instance, you suffer from water retention or high blood pressure) your doctor may recommend guidelines different from those listed here. But, for most healthy people, shaking the salt habit and using the above tips can help anyone follow a sodium-sensible diet. ☐



## Other Tips

- ✧ Avoid snack chips—most are high in sodium and fat.
- ✧ Restrict your use of processed, cured, and smoked meats.
- ✧ Avoid "pickled" foods and foods soaked in brine.
- ✧ Check medicine labels for added sodium.
- ✧ Use sodium-reduced varieties of your favorite products.
- ✧ Check labels on carbonated beverages for added sodium.

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# Sugar

***Sugar comes in three forms: sucrose*** from cane or beet sugar, and the sugar syrups, *glucose* and *fructose*. Sugar is found in far more foods than desserts. It is a member of the food family known as carbohydrates, which include the fructose in fruits, and the glucose in wheat, rice, potatoes, corn and other starches. Brown sugar is no healthier than white; its dark color is obtained either during the incomplete last stage of purification or by adding caramel coloring. In its physiological effects, brown and white sugar seem identical. Most Americans need less sugar than they eat.

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### *How much sugar do we eat?*

The average American eats about 125 lbs of sugar every year. Of this total, about 80% is sucrose. More than three-fourths of this sugar is "hidden" in prepared foods. Sugar is used not only in desserts but also in condiments (such as ketchup), salad dressings, soups, canned and frozen fruits and vegetables, juices and many other items.

### *Is sugar important to eat?*

Carbohydrates are important in any balanced diet, which also should include proteins, vitamins and minerals. Carbohydrates are the source of most of our calories. Yet, all carbohydrates may not be equal in their nutritional benefits. A diet that depends on sugar as its prime source of carbohydrates is not balanced. It lacks carbohydrates which provide vitamins, fiber and other nutrients.

### *Can sugar cause disease?*

That depends on whom you ask. Sugar is controversial. Most nutritionists believe it is okay to eat some sugar as long as your total diet remains adequate. Others have called sugar a causative factor in certain diseases. In the middle are those concerned with the excessive amount of sugar used by Americans and its overall impact on health in the following areas.

*Dental caries*—Sugar destroys teeth. Societies which do not eat sugar are virtually free of cavities.

*Obesity*—While Americans are proud of growing taller, they often ignore the fact that they are getting fatter even faster. Over 35% of us are overweight.

*Associated Diseases*—Obesity often is a contributing factor in the development of hypertension and high blood cholesterol and may trigger the development of diabetes in adults with a genetic predisposition. All three problems contribute to an increased risk for heart attacks and strokes.

### *Should you eat less sugar?*

Probably. We know it's not easy if you have been "sucrose" trained since childhood, but it can be done. Follow these tips:

—Don't keep products loaded with sugar (such as candy) in your home.
—Get your carbohydrates from fresh (rather than canned) foods that also supply vitamins and minerals, such as vegetables, milk, whole grain cereals and breads.
—Eat fruit for dessert instead of cake.
—When you do eat something containing sugar, brush or rinse your teeth as soon as possible.
—If you have children, don't make them "sugar addicts." Keep sweets out of their diets.

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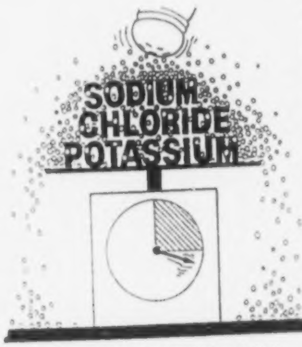
# SODIUM SENSITIVITY

## What Sodium Does To Your Heart

ou or someone you ow suffers from high ood pressure—a major sk factor for heart sease—you were obably placed on a dium restricted diet nd, if you follow your ctor's instructions and ntinue to eat a low dium diet, you have obably noticed that ur blood pressure creased. cess sodium in the diet n raise blood pressure, it that's only part of the ason why too much dium can be bad for ur health. Learning out what sodium does your heart can help you derstand why all of us— ot just those with high ood pressure—can nefit from reducing the mount of sodium in the ets.



Too much sodium upsets the body's fluid balance which can lead to high blood pressure and edema.

### What Is Sodium?

Sodium is one of three important minerals called electrolytes that regulate the amount of water in our body tissues. (The other two electrolytes are chloride and potassium.) Sodium also helps our body use amino acids, and aids in nerve transmission and muscle contraction. The National Research Council recommends that healthy adults need 1,100-3,300 mg. of dietary sodium per day(there are 2,000 mg. in one teaspoon of salt)

### Sodium And Blood Pressure

Our bodies require a delicate balance of electrolytes to maintain the volume of fluids in our bodies. When we eat too much sodium, the balance is thrown off. Excess sodium holds excess water, which results in increased blood volume. The excess fluid can also make blood vessels overly sensitive to nerve transmission causing them to contract or narrow. Not only must the heart work harder to push more blood through to the rest of our bodies, but the *force* of the blood pressing against the walls of the narrowed vessels then increases—a condition known as hypertension or high blood pressure.

### Sodium And Edema

Too much sodium also makes body tissues swell from water retention—a condition known as edema. Edema affects circulation in general by making it more difficult for blood to return to the heart. It can also increase your risk of forming dangerous blood clots. Edema of the heart's tissues can cause heart failure—the inability of the heart to pump properly.

### Sodium Sense

Research indicates that some individuals may be more sensitive to sodium than others, but most of us can benefit by reducing the amount of sodium in our diets. Although sodium is not the same thing as salt, common table salt is a significant source of sodium for most people—one teaspoon of salt contains about 2,000 mg. of sodium. The sensible approach to sodium reduction is to avoid added salts, to avoid processed foods, and to check labels on packaged foods for the words "sodium" or its chemical symbol "Na." ☐

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*Sources not complete.
Various health brochures.

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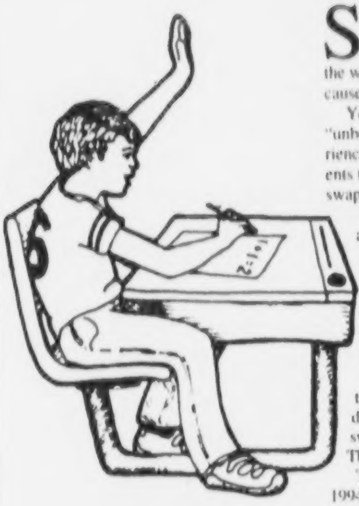
# The SCOOP on SUGAR

## *Experts see problems with new studies that say sugar is OK for kids*

Studies published recently in the *New England Journal of Medicine* and in *Pediatrics* fly in the face of the widespread belief that sugar can cause hyperactivity in children.

Yet some experts find the conclusions "unbelievable" and contrary to all experience, and are warning teachers and parents to think twice before they begin swapping carrot sticks for cookies.



"It's a shame that a lot of people are going to think that sugar has nothing to do with behavior or cognitive function," said nationally known pediatric allergist Doris Rapp, who has treated thousands of children for food allergies and wrote the bestseller *Is This Your Child?*

"Talk with teachers and most will tell you that they can't teach the children much after they've eaten a lot of sweets. Forget the day after Halloween. The kids are too revved up," said Rapp.

The study in the *Journal* (Feb. 3, 1994) used one group of children described as being sensitive to sugar and another group of normal children. Kids and families followed a different diet each week for three weeks. The first week's diet was high in sugar; the second week's high in the artificial sweetener aspartame, and the final week's high in saccharin.

The study in *Pediatrics* recruited hyperactive children to address the suspicion that the artificial sweetener aspartame adversely affected the brain and behavior.

Neither study found any effect.

### 'Straw man' study

"I'm astounded that the *Journal* would publish the article because it's so flagrant in its poor design," said Rapp. "It's an elaborate study, but lacking in methodology."

Rapp noted that the children in the *Journal* study were selected because parents said they were allergic to sugar. She stressed that a preliminary study would be necessary to determine if the participants were really allergic to sugar or to something else in the foods they ate.

Rapp and Dr. Joseph Miller, author of *Relief at Last*, point out that the sweets people usually associate with sugar actually may not have any sucrose, which is granulated sugar made from cane or beet. Rather, the sweets people mention actually contain sweeteners derived from corn, which is the third ranked substance on most allergists' top ten list of allergens.

Also, many sweets, such as candy bars, contain other leading allergens, such as wheat, milk, and chocolate. (See top allergens this page.)

"Most hyperactive children are reacting to one or more of the most frequently hidden allergenic foods, but not to sucrose," said Miller.

He said those allergens can cause anaphylactic reactions where children lose the ability to think clearly, tend to get out of control, bump into tables, and reverse letters when they write.

"The research may be correct (about sugar) but is misleading," said Miller. "When kids eat sweets, they're eating something different than was studied in this investigation ... The study was a straw man that was set up to knock down."

Rapp suggests that teachers could easily see the effect of sweets by holding dual parties at school. Serve sweets at one party and vegetables at another. Then compare results. Teachers should check the children and have them write, read and draw before and after taking the sugar. Those children who are sensitive to some ingredient in the sweets may develop red ears or cheeks and glassy eyes, become hyperactive or irritable and aggressive. Their penmanship and drawing skills may deteriorate.

Also, the study tested children only once a week. Rapp said that when checking children for food allergies, take them off the food for five to 12 days and then give the food on an empty stomach.

Check them in the next five to 15 minutes.

### What's in that sweet

Pat Stoll, an elementary remedial reading teacher and co-president of the Galway Teachers Association in Saratoga County, shares the concern about other ingredients in sweets. "I'm concerned about the caffeine in chocolate, which has been linked to mood changes and headaches. There may be more involved in candy than plain sugar."

In her own family, Stoll has seen that sugar substitutes can be a problem. "When we read ingredients, we watch for the aspartame, the fructose (sweetener from fruit), the corn syrups, the sucrose, any sweetener. Fructose can be a greater problem than plain sugar," she said.

Galway principal JoAnn Sole said that staff are seeing more students who are identified and treated as having attention deficit disorder or being hyperactive. In many instances, pediatricians and allergists who treat the children are saying that sugar and diet are not the major factors in hyperactivity; (the mother's) prenatal and prefetal care seem to be a stronger link.

"Yet, I'd have to say that around Halloween and Valentine's Day, when children have all this candy, there certainly is an impact ... for a day, a week, a month," said Sole.

Shirley Morgan, a school nurse/teacher and member of the Schodack Central School Faculty Association in Rensselaer County, said that she personally has not often witnessed the sugar/hyperactivity effect.

"But I'll tell you that there's no convincing parents or teachers of that. I've heard colleagues say, 'They're (pupils) going to be off the walls this afternoon. Did you see all those kids with the slushies?'"

*— Van Dyke*

### Allergy info

~~Teachers can obtain free infor-~~mation about allergies and sources of help and information by contacting the following:

- For a copy of the *The School Allergy Brochure*, which provides practical information about identifying and seeking treatment for allergies triggered in school, send a self-addressed stamped envelope with 29 cents postage to: Dr. Joseph Miller, 5901 Airport Blvd., Mobile, Ala. 36608.
- For general information about children and allergies, contact The Practical Allergy Research Foundation, P.O. Box 60, Buffalo, N.Y. 14223. (800) 787-8780.
- Specialists knowledgeable about chemical sensitivity:
  - American Academy of Environmental Medicine, P.O. Box 16106, Denver, Colo. (303) 622-9755.
  - American Academy of Otolaryngic Allergy, Suite 745, 8455 Colesville Road, Silver Spring, Md. 20910. (301) 588-1800.
  - Pan-American Allergy Society, P.O. Box 947, Fredericksburg, Texas. 78624. (210) 997-9853.

### 'Top ten' allergens

Pediatric allergists have identified foods they consider most likely to trigger allergic reactions. Children may be allergic to two or more of the items on the prioritized list.

1. milk and dairy products
2. wheat
3. corn
4. chocolate
5. egg
6. soy
7. peanuts
8. yeast
9. sugar
10. additives & preservatives
11. beef
12. pork
13. chicken
14. tomato
15. citrus

March 7, 1994

## Diabetes an 'Epidemic'

The number of Americans living with diabetes has increased sixfold, to a record 15.7 million, since 1958, and one reason is that people are too fat, the government said yesterday.

As of 1997, there were 10 million people alive who had been diagnosed with the disease, compared with 1.6 million in 1958, the Centers for Disease Control and Prevention said.

"We are becoming a more overweight population, we are less active, and we are also getting somewhat older," said Dr. Frank Vinicor, director of the CDC's diabetes division. "If you put all of those factors together, we are seeing a chronic disease epidemic occurring."

The CDC and the World Health Organization estimate 125 million people worldwide have diabetes. That number is expected to double by the year 2025.

NY Daily News

## Sugar Shocker

**THE AVERAGE AMERICAN** consumes about 150 pounds of sugar and refined sweeteners per year, according to the latest U.S.D.A. statistics (1995). Compare that with what our grandparents ate: seven pounds a year. Refined sugar sweetens many processed foods. Soft drinks, which contain nine teaspoons per can, account for about a quarter of our sugar consumption. Now, the dairy industry has developed fruit-flavored milk, with as much sugar in it as soda pop! The high intake of sugar can suppress the immune system and has been linked to many diseases; the addition of sugar to the diets of indigenous groups parallels the increased rates of disease in their populations.

SUGAR
sweetened by the Sun

*(Townsend Letter for Doctors and Patients, November 1997; 21)*

Lets Live March 1998

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## Teacher Notes 2

# The Ten Worst Additives

[Taken from "*The Ten Worst Additives*," Nutrition Action Healthletter, June 1991, pp. 8-9.]

In alphabetical order, the ten worst additives are:

1. Acesulfame-K
Sold as: Sunette or Sweet One
Use: Sugar substitute; used in soft drinks and baked goods
Danger: Causes cancer in animals.

2. Artificial Colors
Sold as: Red No. 3
Use: Cosmetics, foods
Danger: Causes thyroid tumors in rats.

Sold as: Yellow No. 5
Use: Foods
Danger: People suffer from hives, runny and stuffy nose, occasionally, severe breathing problems.

3. Aspartame
Sold as: NutraSweet, Equal
Use: Food sweetener
Danger: Causes phenylkentonuria (PKU) in 1/20,000 babies; potential cause of altered brain function and behavioral change; dizziness, headaches, epileptic-like seizures, menstrual problems.

4. BHA & 5. BHT
Use: Prevent oxidation and retard rancidity in foods with oil.
Danger: Possibly carcinogenic to humans. Other ways to prolong shelf-life of foods exist.

6. Caffeine
Use: Stimulant added to/found in foods
Danger: Can cause nervousness, nausea, insomnia; can interfere with reproduction, affects developing fetus; may cause or aggravate fibrocystic breast disease (benign lumps). Mildly addictive.

7. Monosodium Glutamate (MSG)
Use: Flavoring in foods
Danger: Can lead to headaches, tightness in chest, burning sensation in forearms and back of neck ("Chinese-restaurant syndrome").

8. Nitrites

Use: Preserve meat (maintain red color, contribute to flavor, inhibit growth of botulism-causing bacteria).

Danger: When combined with secondary amines, can form powerful cancer-causing nitrosamines which occur most readily at high temperatures of frying and also in the stomach. Special problem: bacon, since fried at high temperature.

9. Saccharin

Use: Sugar substitute

Danger: Linked with cancer in laboratory animals.

10. Sulfites

Use: Prevent discoloration in dried fruit, fresh-cut potatoes; control black spots in freshly caught shrimp; prevent discoloration, bacterial growth and fermentation in wine.

Danger: Can provoke allergic reactions, such as difficult breathing.

**Industrial dyes and other carcinogens used in foodstuff with impunity in the Capital**

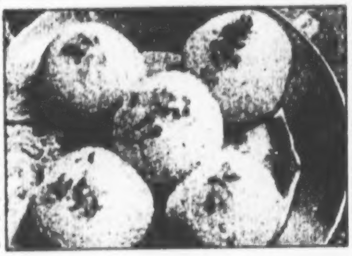
# THE COLOUR OF DEATH

**Radhika Sachdev**

The next time you reach out for your favourite brand of ice-cream or that plate of saffron-coloured biryani at your favourite restaurant, remember that it could be loaded with textile and industrial dyes which can cause kidney problems or, worse still, cancer.

A study, conducted by a team of researchers from the Bangalore-based Indian Institute of Scientists (IIS), has concluded that food establishments in Delhi are using many unpermitted synthetic agents, mainly textile and industrial dyes, to colour their foodstuffs, with impunity.

After running laboratory tests on 32 varieties of such items — including ice-creams, frozen desserts, flavoured milk, yoghurt, biscuits, pastries, cakes, candies, Indian sweetmeats and savouries — the team found heavy traces of industrial dyes in each of them. The study further states that even permitted dyes are being used indiscriminately, far in excess of the statutory limits.



The industrial dyes discovered in the tests were — auramine (yellow), metanil yellow, lead chromate, rhodamine (pink), Sudan 3 and 4 (red), orange 2 and malachite green — all known for their high toxicity. "In fact, all these colours can cause acute food poisoning, are mutagenic and most have been identified as potential carcinogens," says Dr Arun Patnaik, a researcher associated with the study who collected his food samples from Bengali Market, Green Park, Gole Market, Chowri Bazar, North Delhi and Mother Dairy outlets.

A survey of a few restaurants in Bengali Market by the *Delhi Times* also revealed that most owners had no clue about which food colours are permitted. "The cooks gets the colours from the market," said the proprietor of one leading restaurant. Asked if this cook is educated and knows what he is purchasing, he countered, "How can a cook be educated? But, he is very experienced. We have been running this restaurant for several years. There has never been any problem."

No restaurant in Delhi is licensed under the Prevention of Food Adulteration (PFA) Act. "All they have is a license from the MCD under the Shop and Establishment Act," says PFA's joint director, Sunil Saxena. Worse, Delhi and Lakshwadeep are the only two states in the country where no bye-laws have yet been framed for the 1997 amendment of the PFA Act. Where the PFA is an ex-cadre department under the Delhi government with no licensing authority. Except for the director and the joint director, the posts of all the field staff are non-transferable.

Consequently, the 36 food inspectors and four local health authorities have been on their posts for the last 20 years or more. "We know they have all established a nexus with the traders. So, each successive director also decides not to send them to conduct raids. Instead, we use our field staff to spread an awareness campaign amongst the public," says Saxena.

PFA's director, Ashok Bakshi, when questioned, declined to comment on the issue. "This is a government decision. I cannot comment on it. But, we are told that the bye-laws will be framed very soon, maybe in a fortnight. Then we can exert more control on these food establishments," he said.

The amended Prevention of Food Adulteration Act permits the use of only eight food colours, in quantities not exceeding 100 ppm. However, only in the case of certain preserved and canned foods such as peas, strawberries, cherries, tomato juice, fruit syrup, fruit squash, jellies, jam, marmalade, crystallised or glazed fruits is the permitted limit 200 ppm.

"Yet, our tests concluded that in more than 51 per cent of cases, the limits were far exceeded," says Patnaik. For instance, in the case of cakes, pastries, biryani, *jalebi*, biscuits and tomato ketchup, the permitted levels were grossly exceeded. Even branded items such as ice-creams and dairy products do not mention the chemical composition of the colours used on the labelling or a warning of their possible side effects, as stipulated under the Act.

PFA director Ashok Bakshi says, "We know some food establishments are using unpermitted colours or are using permitted colours in excess. We also conduct raids and nab them from time to time. What else can we do?"

The Times of India, July 1998.

# eco-actions

positive impacts on our economy and ecology

Eco-Villains

## The ten most important foods to buy organic

Following are the ten most frequently and heavily pesticide-contaminated food products. Buying organic foods can reduce exposure to toxic foods — check out your local natural foods stores, food co-ops and farmers' markets.

**Baby Food** Federal pesticide standards do not adequately cover infant foods – 16 pesticides are detectable in most mainstream brands.

**Strawberries** The single most heavily contaminated fruit or vegetable sold in the U.S.

**Rice** Herbicides and insecticides have contaminated ground-water near rice fields in California's Sacramento River Valley.

**Oats and Other Grains** With six to eleven daily recommended servings, you can't afford to ingest the excessive pesticides commonly used on grains.

**Milk** To stimulate greater milk production, many dairy companies routinely use the growth hormone rBGH, followed up with antibiotics to prevent infections often caused by the hormone.

**Corn** 50 percent of all pesticides applied annually in the U.S. find their home in corn.

**Bananas** The pesticides used during banana production include benomyl (linked to birth defects) and chlorpyrifos (a neurotoxin).

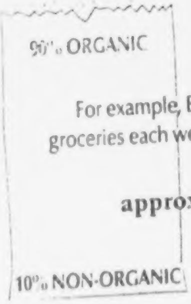
**Green Beans** Mexican green beans are the worst offenders – 9.4 percent of the crop is contaminated with illegal pesticides.

**Peaches** The FDA cited above-average rates of illegal pesticide violations on peaches.

**Apples** Domestic apples have been found to be nearly as contaminated as strawberries.

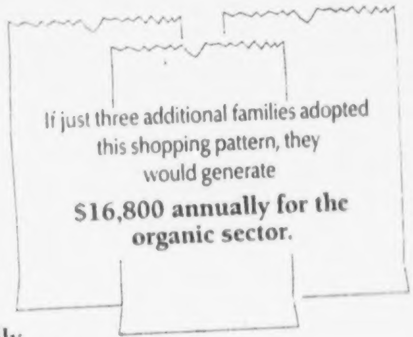
CONTACT: Environmental Working Group, 1718 Connecticut Ave. NW, Ste. 600, Washington, DC 20009, (202)667-6982 SOURCE: E Magazine, September/October 1997.

Buying organic food, protects your family, the environment, family farms and farm workers.



For example, Bob Scowcroft's family of four buys $120 worth of groceries each week. About 90% of their purchases are organic ($108). In a year, his family spends

**approximately $5,600 on organic food.**



If just three additional families adopted this shopping pattern, they would generate

**$16,800 annually for the organic sector.**

Taken together, the four families would generate about

**$22,400 annually, — enough to profitably sustain one organic farm for a full year.**

Even if you can't buy everything organic, you can make a difference by increasing your purchases of organic [illegible]

SOURCE: Green Light, Volume 8, Issue 3

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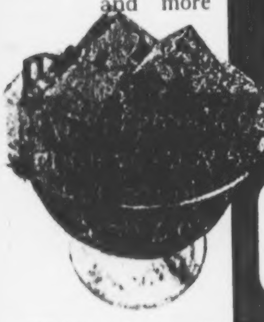
# Creme de la creme

Don't banish fats from your diet; eat them, but moderately, says **Dr JAGMEET MADAN**

EVER wondered why high BP, high cholesterol levels, heart attack or diabetes are almost synonymous with an urban lifestyle? Researchers have identified a number of factors responsible for the same but the most important culprit seems to be 'fat'.

Does it mean that an absolute "No" to ghee or butter and an overemphasis on a certain brand of cooking oil is the answer to our health problems? Not really. It's time we took a good look at the much-maligned fats and their role in our diet.

We need fats and oils in our diet to make up for the extra calories without increasing the bulk of the diet (more true in case of young children and those who are underweight) and more importantly to meet the requirements of essential fatty acids.

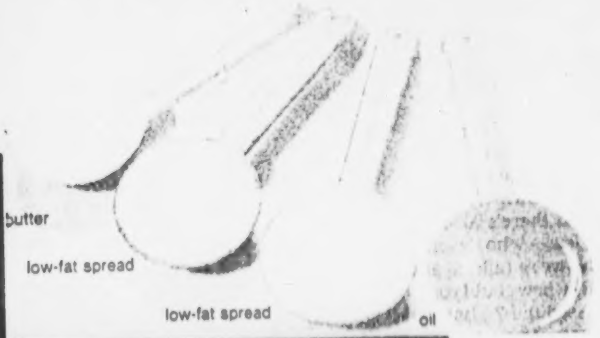


The essential fatty acids, needless to say, are an essential requirement of the body but which cannot be met with by the body itself. We, therefore, have to depend on the dietary sources to ensure their adequacy. These fatty acids in turn produce a group of vital substances in the body which are so very essential to protect us against the devils of hypertension or diabetes.

The fatty acids are obtained from a variety of "vegetable sources" including cereals, pulses, green leafy vegetables and vegetable oils like soyabean, *til* or sunflower oil (These come under the category of Poly Unsaturated Fatty Acid or PUFA). They are also present in 'visible fats' like margarine, ghee, butter, cream and coconut oil and 'invisibly' in meat, whole milk and its concentrated products like khoya or ice creams (Called Saturated Fatty Acids (SFA).

Eating anything in excess is bad and fats are associated with an increased risk to heart disease and certain specific cancers. Over emphasis on oils that are very high in PUFA cause oxidative effects making a person vulnerable to a disease like atherosclerosis.

So what happens? We can't banish the fats from our lives. We can't indulge in them. The ideal way is to balance their intake. This is how one could do it.



- Incorporate a variety of visible fats like vegetable oil, ghee or butter in your diet but limit the total intake to approximately five tablespoons a day.

As per the recent WHO guidelines for prevention of heart disease the recommended level of fat intake should range between 15 per cent to 30 per cent of total calories consumed. Considering our sedentary urban lifestyle we could stick to the lower limits which amounts to 20-25 gm (four to five teaspoons a day). •If your diet comprises whole grain cereals like *chapati, bhakri* or parboiled rices, a variety of puleses, green leafy vegetables and small amount of nuts on a regular basis, a major part of your requirement of essential fatty acid is met with. The vegetable oil that's used while cooking adds to the remaining little.
•Use a combination of cooking oils. Choose an oil like groundnut or *til* oil along with mustard or soyabean oil to acquire the right balance.
•Improve on the quality of fats in your diet. Incorporate whole grain cereals like wheat and bajra. Eat pulses at least three to four times a week. Emphasise on Black gram (*Urad*), Cow pea (*Chawli*), *Rajmah* and Soyabean. Make seasonal green leafy vegetables a part of at least one of your meals. If you are a non-vegetarian, switch to intake of fish two to three times a week. Don't go for fried fish. Steam, bake or grill it instead. Incorporate spices like *methi* seeds or *rai* (mustard seeds) in your diet.

And, finally, look out for those invisible fat sources like mutton, beef, pork, organ meats, processed meats and egg yolk. Also try not to attack cakes, pastries or frozen desserts like ice-creams when offered to you. Try a little nibbling at them only once in a while. And that's the way to be. ■

The Sunday Review July 5, 1998.

The Sunday Review Aug 2, 1998

## HEALTH

# Oh god, is that me?

If that's what you think every time you look into a mirror, take a second look. For it's not just your cheekbones — it's also your mind that decides how attractive you feel, writes **GAYATRI PAGDI**

PHOTO: SUNIL CHERIAN/MODEL: ANVISHA

THE next time you look into a mirror, take a good, hard *dekko* at what stares back at you. A crooked nose, perhaps? Lips too thin? A shiny pate? You recoil in horror. And get a good view of your stomach, which doesn't let you see your toes. So you hide your face with that flabby arm and turn away to show that big butt!

If you can't think of one part of your body that you like, then this piece is for you. Because most of us, at most times, are unhappy about the way we look. We often buy clothes that are either a size too big (so that our so-called fat doesn't show) or too small (so we hope to fit into it some day). We aren't sure if there's room for us in a crowded elevator or that we can squeeze in between two people on a seat. And we are pleasantly surprised when attractive people show any interest in us. In other words, our appearance, our shape, our size usually doesn't let us measure up.

A perfectly unnecessary thought, but a fairly common one. An international body image survey done early last year showed that more than 90 per cent women and 75 per cent men are dissatisfied about their appearance and would like to improve on it. In 1997 *Psychology Today* polled 4,000 readers in a similar survey. Fifty six per cent of women and 43 per cent of men were dissatisfied with their appearance. High on the hate list for women were their hips and for men their chests. And both hated their abdomens passionately. As if to further emphasise this point, a noted psychiatrist and author [illegible] Hutchinson studied 100 people chosen especially for their normal weight and no history of eating disorders. She found that only one of them wasn't actively waging a war against fat!

So why? Why do most of us have a poor body image? Why are we persistantly unhappy about the genetic cards dealt to us?

"I don't know why I feel so unhappy about the way I look," says P Vaidehi, an attractive, intelligent woman in her late 20s. "There are times when I don't want to get out of the house because I feel so ugly. Nobody can understand it. I look perfectly okay to them."

"All of us have an inaccurate body image," writes Hutchinson in *Transforming Body Image*. "We almost always overestimate our size." But if these thoughts actually start nagging us and then go on to take the proportions of a torment each time we look into the mirror, then we have a problem on hands. We could be suffering from what psychologists call the Body Dysmorphic Disorder (BDD).

Sufferers of BDD not only dislike some aspect of how they look but are actually preoccupied with it, causing themselves emotional distress. Writes Katherine A Phillips, author of *The Broken Mirror: Understanding and Treating Body Dysmorphic Disorder* and director of the Body Image Programme at Butler Hospital, USA. "If you worry about your appearance for more than an hour a day, are anxious at work about how you look, which affects your performance, and you're self-conscious at social get-togethers, then it's a significant problem."

How we feel about how we look is a product of what our family, friends, relatives, boyfriends, husbands have told us, what we see around us, the culture that we live in and our own expectations of ourselves. "I went to a school that seemed to me to be filled with pretty pink girls," says mediaperson Vaishnavi Balamurali. "I was the only one who stood out because I was tall and dark. They were always the princess in [illegible] day and I was always the bodyguard. It took me years to realise that theirs wasn't the only body type that was beautiful."

Says Shivakami Rajamuthaiah, a Clinical Psychologist, "A negative body image directly results in low self-esteem and depression. The phenomenon is more common among women. Housewives, more than the working women, have their self-worth linked with their appearance and body image."

But men don't escape this either. "Men are increasingly under pressure to be strong, big, tall," says Shivakami. "Being big is perceived as being 'manly'. While women feel that men would prefer a thinner shape than they actually do, men feel that women would prefer a larger shape than they actually do."

And so we battle with our bodies, spending time thinking of what needs work, debating which foods to avoid, laying on the guilt when our exercise bike is used to hang bags on. And, in the course of all this, forget that factors like heredity, our body's frame and how fast it burns calories have a lot to do with its size and shape.

So while the financially better-equipped go for liposuctions and cosmetic surgeries others go for the more 'convenient' crash diets. For most, crash diets don't work. Typically anyone who goes on such a diet loses weight for a while, and within a short while gains back all that they lost. Experts are now telling us that diets actually serve to lower your metabolism in response to what your body perceives as starvation. So, you can't win. This yo-yo dieting is also harmful otherwise. Experts say that repeated weight loss and gain can lead to loss of bone mass and increase the risk of osteoporosis. Besides, a bad diet is linked with anaemia, lowered resistance to infection and chronic fatigue. In extreme cases this obsession with thinness leads to eating disorders like anorexia or bulimia.

Besides, in search of the perfect body we may just lose out on other important things. Said Dr Jeevan Mohadikar, a sexologist, in an interview some time ago, "People who are physically self-conscious cannot enjoy a healthy sex life." A study found that women who were ashamed of their bodies reached orgasm less often. And that a low body image also affected a man's sexual performance.

Probably one of the healthiest things we can do for ourselves, whether male or female, is to learn to accept and appreciate the bodies we have right now. Because good health is something more than the number we see on the weighing scale. And the fact remains that both body image and self-esteem are perceptions that are not linked to physical realities. What matters is how we decide to feel about it all.

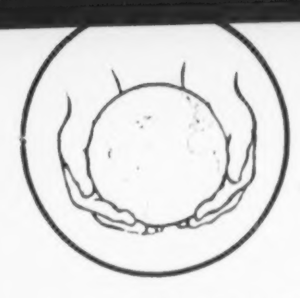
So throw out that scale. Refuse to abuse your body by those starvation routines. And the next time someone nags you about your size or shape or weight, instead of saying, "So what should I do? Amputate a leg to weigh less?" remind him and yourself that looking like a model is not on cards. And remember what Gertrude Stein had said, "Let me listen to me, and not to them." ■

### Reasons for a poor body image

- Weight gain
- Media's obsession with thinness
- Cultural pressures
- Physical changes like pregnancy
- Disfigurement due to an accident
- Chronic illness

### To improve on it you could

- Stop bad-mouthing your body
- Shun relationships where your sense of self-worth is affected
- Learn to take a compliment. People, more often than not, mean it



# THE REALITIES OF ANIMAL BASED AGRICULTURE

## Facts excerpted from *Diet for a New America* by John Robbins

PETA Resource Materials

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Human population of United States: **243 million**

Number of human beings who could be fed by grain and soybeans eaten by U.S. livestock: **1.3 billion**

Sacred food of Native Americans: **Corn**

Percentage of corn grown in United States eaten by human beings: **20**

Percentage of corn grown in United States eaten by livestock: **80**

Percentage of oats grown in United States eaten by livestock: **95**

Percentage of protein wasted by cycling grain through livestock: **90**

Percentage of carbohydrate wasted by cycling grain through livestock: **99**

Percentage of dietary fiber wasted by cycling grain through livestock: **100**

How frequently a child dies of starvation: **Every two seconds**

Pounds of potatoes that can be grown on one acre of land: **20,000**

Pounds of beef that can be produced on one acre of land: **165**

Percentage of U.S. agricultural land used to produce beef: **56**

Pounds of grain and soybeans needed to produce one pound of feedlot beef: **16**

Pounds of protein fed to chickens to produce one pound of protein as chicken flesh: **5**

Pounds of protein fed to hogs to produce one pound of protein as hog flesh: **7.5**

Number of children who starve to death every day: **40,000**

Number of pure vegetarians who can be fed on the amount of land needed to feed one person consuming a meat-based diet: **20**

Number of people who will starve to death this year: **60 million**

Number of people who could be adequately fed by the grain saved if Americans reduced their intake of meat by 10 percent: **60 million**

Historic cause of demise of many great civilizations: **Topsoil depletion**

Percentage of original U.S. topsoil lost to date: **75**

Amount of U.S. cropland lost each year to soil erosion: **4 million acres (size of Connecticut)**

Percentage of U.S. topsoil loss directly associated with livestock raising: **85**

Number of acres of U.S. forest that have been cleared to create cropland to produce a meat-centered diet: **260 million**

How often an acre of trees disappears in the U.S.: **Every 8 seconds**

Acres of trees spared per year by each individual who switches to a pure vegetarian diet: **1**

A driving force behind the destruction of the tropical rain forests: **American meat habit**

Amount of meat imported annually by U.S. from Costa Rica, El Salvador, Guatemala, Nicaragua, Honduras and Panama: **200 million pounds**

Amount of meat eaten by average person in Costa Rica, El Salvador, Guatemala, Nicaragua, Honduras and Panama: **Less than the average American housecat**

Current rate of species extinction due to destruction of tropical rain forests and related habitats: **1,000 per year**

User of more than half of all water used for all purposes in the United States: **Livestock production**

Quantity of water used in the production of the average cow sufficient to: **Float a destroyer**

Water needed to produce one pound of wheat: **25 gallons**

Water needed to produce one pound of meat: **2,500 gallons**

Cost of common hamburger if water used by meat industry was not subsidized by U.S. taxpayers: **$35 per pound**

Current cost for one pound of protein from wheat: **$1.50**

Cost for one pound of protein from beefsteak if U.S. taxpayers ceased subsidizing meat industry's use of water: **$89**

Length of time world's petroleum reserves would last if all human beings ate a meat-centered diet: **13 years**

Length of time world's petroleum reserves would last if all human beings ate a vegetarian diet: **260 years**

Principal reason for U.S. military intervention in Persian Gulf: **Dependence on foreign oil**

Barrels of oil imported daily by U.S.: **6.8 million**

Percentage of energy return (as food energy per fossil energy expended) of most energy-efficient factory farming of meat: **34.5**

Percentage of energy return (as food energy per fossil energy expended) of least energy-efficient plant food: **328**

Pounds of soybeans produced by the amount of fossil fuel needed to produce one pound of feedlot beef: **40**

Percentage of raw materials consumed in U.S. for all purposes to produce current meat-centered diet: **33**

Percentage of raw materials consumed in U.S. for all purposes needed to produce fully vegetarian diet: **2**

Production of excrement by total U.S. human population: **12,000 pounds per second**

Production of excrement by U.S. livestock: **250,000 pounds per second**

Sewage system in U.S. cities: **Common**

Sewage system in U.S. feedlots: **None**

Amount of unrecycled waste produced annually by U.S. livestock in confinement operations: **1 billion tons**

Relative concentration of feedlot wastes compared to raw domestic sewage: **10 to several hundred times more highly concentrated**

Where feedlot waste often ends up: **In our water**

Number of U.S. medical schools: **125**

Number of U.S. medical schools with a required course in nutrition: **30**

Training in nutrition received during four years of medical school by an average U.S. physician: **2.5 hours**

How frequently a heart attack strikes in the U.S.: **Every 25 seconds**

How frequently a heart attack kills in the U.S.: **Every 45 seconds**

Most common death in the U.S.: **Heart attack**

Risk of death from heart attack by average American man: **50%**

Risk of death from heart attack by average American vegetarian man: **15%**

Risk of death from heart attack by average American pure vegetarian man: **4%**

Amount you reduce your risk of heart attack by reducing your consumption of meat, dairy products and eggs by 10 percent: **9%**

Amount you reduce your risk of heart attack by reducing your consumption of meat, dairy products and eggs by 50 percent: **45%**

Amount you reduce your risk of heart attack by reducing your consumption of meat, dairy products and eggs by 100 percent: **90%**

Rise in blood cholesterol from consuming one egg per day: **12%**

Rise in heart attack risk from a 12 percent rise in blood cholesterol: **24%**

Meat, dairy, and egg industries claim there is no reason to be concerned about your blood cholesterol as long as it is **"normal"**

Your risk of dying of a disease caused by clogged arteries if your blood cholesterol is "normal": **More than 50%**

Your risk of dying of a disease caused by clogged arteries if you do not consume saturated fat and cholesterol: **5%**

Leading sources of saturated fat and cholesterol in American diets: **Meat, dairy products, and eggs**

Hollywood celebrity paid by Meat Board to tout beef as "real food for real people": **James Garner**

Medical event experienced by James Garner in April 1988: **Quintuple coronary artery bypass surgery**

World populations with high meat intakes that do not have correspondingly high rates of colon cancer: **None**

World populations with low meat intakes that do not have correspondingly low rates of colon cancer: **None**

Increased risk of breast cancer for women who eat meat daily compared to women who eat meat less than once a week: **Four times higher**

Egg Board's advertising slogan: **"The incredible edible egg"**

Photographs often accompanying the Egg Board's slogan: **Young women in bathing suits, emphasizing the shape of their breasts**

Increased risk of breast cancer for women who eat eggs daily compared to women who eat eggs less than once a week: **Three times higher**

Milk Producer's original ad campaign slogan: **"Everybody needs milk"**

What the Federal Trade Commission called the "Everybody needs milk" slogan: **"False,**

**misleading and deceptive"**

Milk Producer's revised campaign slogan: **"Milk has something for everybody"**

Increased risk of breast cancer for women who eat butter and cheese three or more times a week compared to women who eat these foods less than once a week: **Three times higher**

Part of female chicken's body that produces eggs: **Ovaries**

Increased risk of fatal ovarian cancer for women who eat eggs three or more times a week compared to women who eat eggs less than once a week: **Three times higher**

Foods U.S. males are conditioned to think of as "manly": **Animal products**

Increased risk of fatal prostate cancer for men who consume meats, cheese, eggs and milk compared to men who eat these foods sparingly or not at all: **3.6 times higher**

The Meat Board tells us: **Today's meats are low in fat**

The Meat Board shows us: **A serving of beef they claim has "only 300 calories"**

The Meat Board doesn't tell us:

**The serving of beef they show us is only three ounces (half the size of an average serving of beef) and has been surgically defatted with a scalpel**

The dairy industry tells us: **Whole milk is 3.5 % fat**

The dairy industry doesn't tell us: **That 3.5 % figure is based on weight, and most of the weight in milk is water**

The dairy industry doesn't want us to know: **The amount of calories as fat in whole milk is 50 %**

Oscar Mayer tells us: **It is a "myth" that hot dogs are fatty**

Oscar Mayer demonstrates their point by favorably comparing the fattiness of hot dogs to such "low-fat" bastions as: **Margarine, mayonnaise, salad dressing and cream cheese**

The Dairy Council tells us: **Milk is nature's most perfect food**

The Dairy Council doesn't tell us: **Milk is nature's most perfect food for a baby calf, who has four stomachs, will double his or her weight in 47 days, and is destined to weigh 300 pounds within a year**

The Dairy Council tells children: **To grow up big and strong, drink lots of milk.**

The Dairy Council occasionally tells children: **The enzyme necessary for digestion of milk is lactase**

The Dairy Council never tells children: **20 % of Caucasian children and 80 % of black children have no lactase in their intestines**

The meat, dairy and egg industries tell us: **Animal products constitute two of the "Basic Four" food groups**

The meat, dairy and egg industries don't tell us: **There were originally 12 official basic food groups — before these industries applied enormous political pressure on behalf of their products**

The meat, dairy and egg industries tell us: **We are well fed only with animal products**

The meat, dairy and egg industries don't tell us: **The diseases that are commonly prevented, consistently improved, and sometimes cured by a low-fat vegetarian diet include: strokes, heart disease, osteoporosis, kidney stones, breast cancer, colon cancer, prostate cancer, pancreatic cancer, ovarian cancer, cervical cancer, stomach cancer, endometrial cancer, diabetes, hypoglycemia, kidney disease, peptic ulcers, constipation, hemorrhoids, hiatal hernias, diverticulosis, obesity, gallstones, hypertension, asthma, irritable colon syndrome, salmonellosis, trichinosis**

Pesticide residues in the U.S. diet supplied by meat: **55 %**

Pesticide residues in the U.S. diet supplied by dairy products: **23 %**

Pesticide residues in the U.S. diet supplied by vegetables: **6 %**

Pesticide residues in the U.S. diet supplied by fruits: **4 %**

Pesticide residues in the U.S. diet supplied by grains: **1 %**

Percentage of U.S. mother's milk containing significant levels of DDT: **99**

Percentage of U.S. vegetarian mother's milk containing significant levels of DDT: **8%**

Relative pesticide contamination in breast milk of meat-eating mothers compared to pesticide contamination in breast milk of vegetarian mothers: **35 times as high**

Percentage of male college students sterile in 1950: **.5**

Percentage of male college students sterile in 1978: **25**

Sperm count of average American male compared to 30 years ago: **Decreased 30 %**

Principal reason for sterility and sperm count reduction in U.S. males: **Chlorinated hydrocarbon pesticides (including dioxin, DDT, etc.)**

Percentage of chlorinated hydrocarbon pesticide residues in American diet attributable to meats, dairy products, fish and eggs: **94**

The Meat Board tells us not to be concerned about the dioxins and other pesticides in today's beef because: **The quantities are so small**

The Meat Board doesn't want us to know: **How potent dioxin and the other pesticides are**

The Meat Board particularly doesn't want us to know: **A mere ounce of dioxin could kill 10 million people**

The USDA tells us: **Our meat is inspected**

The USDA doesn't tell us: **Fewer than one out of every 250,000 slaughtered animals is tested for toxic chemical residues**

The dye used for many years by the USDA to stamp meats "Choice," "Prime" or "U.S. No. 1 USDA": **Violet Dye No. 1**

Current status of Violet Dye No. 1: **Banned as a proven carcinogen**

Wingspan of average leghorn chicken: **26 inches**

Space average leghorn chicken is given in egg factories: **6 inches**

Number of 700-plus-pound pigs in a typical factory farm confined to space the size of a twin bed: **three**

Reason today's veal is so tender: **Calves are never allowed to take a single step**

Reason today's veal is so whitish-pink: **Calves are force-fed an anemia-producing diet**

McDonald's brags about: **60 billion sold**

McDonald's doesn't brag about: **50 million butchered**

McDonald's clown, Ronald McDonald, tells children: **Hamburgers grow in hamburger patches and love to be eaten**

McDonald's clown, Ronald McDonald, doesn't tell children: **Hamburgers are ground-up cows who have had their throats slit by machetes or their brains bashed in by sledgehammers.**

Original actor to play Ronald McDonald: **Jeff Juliano**

Diet now followed by Jeff Juliano: **Vegetarian**

Number of animals killed for meat per hour in the United States: **500,000**

Occupation with highest employee turnover rate in the United States: **Slaughterhouse worker**

Occupation with highest rate of employee injury in the United States: **Slaughterhouse worker**

Cost to render an animal unconscious prior to slaughter with captive-bolt pistol so that process is done humanely: **One cent**

Reason given by meat industry for not utilizing captive bolt pistol: **Too expensive**

Percentage of all U.S.- produced antibiotics routinely fed to livestock: **55**

Percentage of staphylococci infections resistant to penicillin in 1960: **13**

Percentage of staphylococci infections resistant to penicillin in 1988: **91**

Reason: **Breeding of antibiotic-resistant bacteria in factory farms due to routine feeding of antibiotics to livestock**

Effectiveness of all "wonder drug" antibiotics: **Declining rapidly**

Reason: **Breeding of antibiotic-resistant bacteria in factory farms due to routine feeding of antibiotics to livestock**

Response by entire European Economic Community to routine feeding of antibiotics to livestock: **Ban**

Response by American meat and pharmaceutical industries to routine feeding of antibiotics to livestock: **Full and complete support**

Only man to win Ironman Triathalon more than twice: **Dave Scott (six-time winner)**

Food choices of Dave Scott: **Vegetarian**

World record holder for 24-hour triathalon: **Sixto Linares**

Food choices of Sixto Linares: **Strict vegetarian**

Athlete who most dominated Olympic sport in track and field history: **Edwin Moses (undefeated for eight years in the 400-meter hurdles)**

Food choices of Edwin Moses: **Vegetarian**

Other notable vegetarian athletes:

- **Stan Price (World record — bench press)**
- **Robert Sweetgall (World's premier ultra-distance walker)**
- **Paavo Nurmi (20 world records in distance running, nine Olympic medals)**
- **Bill Pickering (World record — swimming English Channel)**
- **Murray Rose (World records — 400- and 1500-meter freestyle swimming)**
- **Andreas Cahling (Winner — Mr. International bodybuilding championships)**
- **Roy Hilligan (Winner — Mr. America bodybuilding championships)**
- **Pierreo Verot (World record — downhill endurance skiing)**
- **Estelle Gray and Cheryl Marek (World record — cross-country tandem cycling)**
- **James and Jonathan deDonato (World record — distance butterfly swimming)**
- **Ridgely Abele (Winner — eight national championships in karate, including U.S. Karate Association World Championships)**

***Diet for a New America* by John Robbins is available from EarthSave, P.O. Box 949, Felton, CA 95018-0949 ($12.95 plus 50¢ postage, plus 85¢ when California state tax applies).**

**For more information on vegetarianism and a cruelty-free lifestyle, contact:**

PETA
PEOPLE FOR THE ETHICAL
TREATMENT OF ANIMALS
501 FRONT STREET
NORFOLK, VA 23510
757-622-PETA

FARM Resource Materials

# MEATOUT HEALTH QUOTES

"We recommend more liberal use of grains, fruits, vegetables, and legumes, development of high quality vegetable protein products, and reduction of caloric intake from saturated fats." *Report of the Inter-Society Commission for Health Disease Resources, 15 December 1970*

"Individual pure vegetarians from many populations of the world have maintained seemingly excellent health. This demonstrates that diets of . . . plant foods can be nutritionally adequate." *National Academy of Sciences, May 1974*

"The diet . . . rich in meat, other sources of saturated fat and cholesterol . . . is everywhere associated with high rates of ischemic heart disease, certain cancers, diabetes, obesity." *Mark Hegsted, USDA Human Nutrition Center, Jan. 1977*

"Americans should increase their consumption of fruits, vegetables and whole grains; and decrease their consumption of meat and fat." Dietary *Goals for the U.S., Senate Select Committee on Nutrition and Human Needs, February 1977*

"People should consume . . . less saturated fat and cholesterol . . . less red meat . . . more complex carbohydrates such as whole grains, cereals, fruits, and vegetables." Healthy *People by the U.S. Surgeon General, July 1979*

"Both breast cancer and colon cancer have been generally associated with the level of consumption of animal fat." *Arthur Upton, Director, National Cancer Institute, Oct. 1979*

"Epidemiological studies have repeatedly shown an association between dietary fat and increased risk of breast, prostate and large bowel cancer. They have also suggested an association between dietary protein and increased risk of cancer. Other epidemiological studies have suggested that consumption of carotene-rich and cruciferous vegetables are associated with a reduced risk of cancer." *Committee on Diet, Nutrition and Cancer; National Research Council, 1982*

"Animal fats, especially those in milk, butter, cheese and meat, are mostly highly saturated, and an excess intake of such foods may be partly responsible for the development of atheroma, which causes atherosclerosis." *Family Medical Guide, American Medical Association*

"1.5 million deaths per year in the U.S. are from diseases associated with diets high in saturated fats and cholesterol. The major dietary sources of fat in the American diet are meat, poultry, fish, dairy products, and fats and oils . . . Dietary cholesterol is found only in foods of animal origin . . . Reduce consumption of saturated fat and cholesterol. . . . Increase consumption of whole grain foods and cereal products, vegetables and fruits." *The Surgeon General's Report on Nutrition and Health, 1988*

"Reduce saturated fat and cholesterol intake by substituting . . . for fatty meats and whole-milk dairy products; by choosing more vegetables, fruits, cereals, and legumes . . . Increased risks of certain cancers and heart disease have been associated in some population studies with diets high in meat . . ." *Report of the Committee on Diet and Health, National Research Council, 1989*

"Choose a diet low in fat, saturated fat and cholesterol . . . with plenty of vegetables, fruits and grain products." *Nutrition and Your Health: Dietary Guidelines for Americans, U.S. Department of Agriculture and U.S. Department of Health and Human Services, 1990*

"We are basically a vegetarian species and should be eating a wide variety of plant foods and minimizing our intake of animal foods." *T. Colin Campbell, Director of the Chinese Health Study, Cornell University, May 1990*

"Now some people scoff at vegetarians, but they have a fraction of our heart attack rate and they have only 40 percent of our cancer rate . . . On the average, they outlive other men by about six years now. And they outlive other women by about three years . . . When you see the golden arches, you're probably on the road to the pearly gates." *William Castelli, M.D., Director, Framingham Heart Study, 1990*

"The major dietary sources of total fat, saturated fat and cholesterol in the U.S. are meats, processed meat products, whole-milk dairy products, eggs . . ." *Improving America's Diet and Health, National Research Council, 1991*

"A vegetarian diet deriving no more than 10 percent of calories from fat can actually reverse heart disease." - *Dean Ornish, M.D., Univ. of California, San Francisco, 1993*

"There may be more than 20,000 infections due to E. coli (from ground beef) in the United States, many of them unreported . . . This is the most serious health problem in food-borne disease, but we've not been able to get the message out." *Mitchell Cohen, Centers for Disease Control and Prevention, 13 February 1994*

"REDUCE YOUR CANCER RISK:

1. Avoid obesity
2. Eat a varied diet
3. Include a variety of vegetables and fruits in the daily diet
4. Eat more whole grain cereals, vegetables, and fruits
5. Cut down on total fat intake
6. Eat less smoked, salted and nitrite-cured foods
7. Greatly restrict alcohol consumption, if you drink at all"

*American Cancer Society, Inc.*

FARM Resource Materials

# MEATOUT HEALTH FACTS

**During the last three decades we have seen a steady stream of medical reports linking consumption of animal fat and meat with elevated risk of "killer" diseases. Here are some recent examples.**

## GENERAL DISEASES

A massive study of the diet and health of 6,500 Chinese, conducted by a Cornell University biomedical team, documents conclusively the merits of a diet free of all animal ingredients in preventing heart disease, stroke, cancer, diabetes, osteoporosis, and even calcium and iron deficiency! Moreover, while the Chinese consume 20 percent more calories, Americans are 25 percent fatter, because they consume three times as much fat. Although the Chinese take in only half as much calcium as Americans do, they rarely suffer from osteoporosis, because they consume less protein which depletes calcium from the bones. Finally, the Chinese take in twice as much iron as Americans do, mostly from plant sources. *The New York Times, 8 May 1990*

A USDA Human Nutrition Research Center study of 508 youngsters found that overweight boys and girls were twice as likely to suffer of heart disease later in life and that overweight boys were five times as likely to have colon cancer and twice as likely to have gout as their thin counterparts. *New England Journal of Medicine, 5 November 1992*

A study of 142 diabetic and 79 healthy children at the Toronto Hospital for Sick Children concluded that drinking cow's milk during infancy may trigger juvenile diabetes in people who are genetically predisposed to the disease. *New England Journal of Medicine, 30 July 1992*

A study of 45,619 male health workers by Harvard School of Public Health found that men with the highest intake of potassium, contained in fruits and vegetables, reduced their risk of kidney stones by 50 percent, while those who ate the most animal protein increased their risk by 33 percent. *New England Journal of Medicine, 25 March 1993*

## CARDIOVASCULAR DISEASES

A comparative study of 64 vegetarians and 90 non-vegetarian children aged 5-8 at Boston University found that none of the vegetarian children were at risk of future heart disease, whereas 20 percent of the non-vegetarian children were. *Vegetarian Times, September 1992*

A study of 87,245 female nurses by Harvard Medical School found that women who ate lots of fruits and vegetables cut their risk of stroke by 54 percent. Spinach and carrots, with the antioxidant vitamins (beta-carotene, C and E), were quite effective. *American Heart Association's Epidemiology Meeting, March 1993*

A study of 1,851 male employees of Chicago's Western Electric Co. by University of Texas scientists found that men whose diet contained amounts of vitamin C and beta-carotene from 1-2 oranges and carrots per day had a 30 percent lower risk of dying from heart disease. *American Heart Association's Epidemiology Meeting, March, 1993*

A study of 1,160 Massachusetts men and women, aged 67-96, concluded that older people should eat five servings a day of fruits and vegetables to reduce their risk of heart disease and stroke. Fruits and vegetables contain vitamin B6 and folate which prevent the formation of an amino acid that contributes to arterial blockage. *Journal American Medical Association, 7 December 1993*

American Heart Association reports that heart disease and stroke killed 923,422 Americans in 1991. The Association estimates this year's cost of treating these diseases at $110 billion and the associated loss in productivity at $18 billion. *The Washington Post, 18 January 1994*

## CANCER

A six-year study of 88,000 nurses by Boston's Brigham and Women's Hospital found that those who ate meat every day were more than twice as likely to get colon cancer as those who avoided meat. *New England Journal of Medicine, 13 December 1990*

A comparative study of 1,150 patients who died of colon cancer with 6,000 healthy people found that people who ate small amounts of grains, vegetables and fruits had 2-3 times the risk of dying of the disease as those who consumed larger amounts of these foods. *National Cancer Institute Journal, 6 October 1992*

A review of 156 diet and health studies by researchers from the National Cancer Institute and University of California (Berkeley) characterized the evidence linking fruit and vegetable consumption with prevention of several forms of cancers as "exceptionally strong and consistent." The authors concluded that people with a low intake of fruits and vegetables have twice or more the risk of cancer as people with a high intake. *Nutrition and Cancer, September 1992*

A study of 1,206 men by University of Buffalo researchers found that men who ate the largest amounts of fruits and vegetables had the lowest risk of bladder cancer. *Nutrition and Cancer, December 1992*

A study of 47,855 male health workers by Harvard School of Public Health found that those who ate red meat five or more times per week had 2.6 times the risk of developing prostate cancer as those who ate red meat once a week or less. Prostate cancer is the second deadliest form of cancer in men, responsible for 32,000 deaths annually in the U.S. *Journal of the National Cancer Institute, 6 October 1993*

A study by Yale University researchers of 800 New Yorkers, including both smokers and non-smokers, found that those who consumed 2.5 servings a day of fruits and vegetables had a 60 percent lower risk of developing lung cancer than those who ate one or fewer servings. The National Cancer Institute estimates that 22,000 non-smokers (15 percent of the total) die of lung cancer each year. *Journal of the National Cancer Institute, January 1994*

Three studies of 1240 children at the University of Southern California found a link between consumption of hot dogs and incidence of childhood leukemia and brain tumors. Children who ate more than 12 hot dogs per month had nine times the normal risk of developing childhood leukemia. Children born to mothers who ate more than three hot dogs per month during pregnancy or those conceived by fathers who ate hot dogs had twice the normal risk of developing brain tumors. *Cancer Causes and Control, June 1994*

## INFECTIOUS DISEASES

Pregnant women and the elderly should avoid undercooked meats, deli foods and soft cheeses to reduce their risk of contracting listeriosis which can produce flu-like symptoms, blood poisoning, birth defects, and death. The disease is caused by Listeria monocytogenes, an extremely hardy pathogen. *Journal of the American Medical Association, 15 April 1992*

The Centers For Disease Control and Prevention (CDC) estimates that 20,000 Escherichia coli O157 infections per year occur in the U.S., though most go unreported. This is the leading cause of bloody diarrhea and hemolytic uremic syndrome, an incurable disease that can cause kidney failure and death in children. The major sources are ground beef and milk. *The Washington Post, 13 February 1994*

The number of Salmonella enteridis infections from raw poultry, eggs and other animal products is estimated at 400,000 – 4 million per year, but most are unreported or misdiagnosed as "flu." *Background Paper*

# Rape of Mother Earth

FARM Resource Materials

**Millions of acres of forestland are devastated through conversion to grazing land and cropland to feed farm animals, both in the U.S. and abroad. Runoff from these lands carries suspended and dissolved solids, organic matter, nutrients, and pesticides into our lakes and streams, accounting for more water pollution than all other human activities combined. Overgrazing and intensive cultivation eventually turn these lands into desert, posing a severe long-term threat to our survival.**

## Deforestation

- Cattle ranching is a primary cause of deforestation in Latin America. Since 1960, more than one quarter of all Central American forests have been razed to make pasture for cattle. Nearly 70 percent of deforested land in Panama and Costa Rica is now pasture.[1]

- Some 40,000 square miles of Amazon forest were cleared for cattle ranching and other commercial development between 1966 and 1983. Brazil estimates that 38 percent of its rain forest was destroyed for cattle pasture.[2]

- Just one quarter-pound hamburger imported from Latin America requires the clearing of 6 square yards of rain forest and the destruction of 165 pounds of living matter including 20 to 30 different plant species, 100 insect species, and dozens of bird, mammal, and reptile species.[3]

## Soil Erosion and Desertification

- Cattle production is turning productive land into barren desert in the American West and throughout the world. Soil erosion and desertification is caused directly by cattle and other livestock overgrazing. Overcultivation of the land, improper irrigation techniques, and deforestation are also principal causes of erosion and desertification, and cattle production is a primary factor in each case.

- Cattle degrade the land by stripping vegetation and compacting the earth. Each animal foraging on the open range eats 900 pounds of vegetation every month. Their powerful hoofs trample vegetation and crush the soil with an impact of 24 pounds per square inch.[4]

- As much as 85 percent of U.S. western rangeland, nearly 685 million acres, is being degraded by overgrazing and other problems, according to a 1991 United Nations report. The study estimates that 430 million acres in the American West is suffering a 25 to 50 percent yield reduction, largely because of overgrazing.[5]

- The United States has lost one third of its topsoil. An estimated six of the seven billion tons of eroded soil is directly attributable to grazing and unsustainable methods of producing feed crops for cattle and other livestock.[6]

- Each pound of feedlot steak costs about 35 pounds of eroded American topsoil, according to the Worldwatch Institute.[7]

## Water Scarcity

- Nearly half of the total amount of water used annually in the U. S. goes to grow feed and provide drinking water for cattle and other livestock. Producing a pound of grain-fed steak requires the use of hundreds of gallons of water. Producing a pound of beef protein often requires up to fifteen times more water than producing an equivalent amount of plant protein.[8]

- U.S. fresh water reserves have declined precipitously as a result of excess water use for cattle and other livestock. U.S. water shortages, especially in the West, have now reached critical levels. Overdrafts now exceed replenishments by 25 percent.[9]

- The great Ogallala aquifer, one of the world's largest fresh water reserves, is already half depleted in Kansas, Texas, and New Mexico. In California, where 42 percent of irrigation water is used for feed or livestock production, water tables have dropped so low that in some areas the earth is sinking under the vacuum. Some U.S. reservoirs and aquifers are now at their lowest levels since the end of the last Ice Age.

## Water Pollution

- Organic waste from cattle and other livestock, pesticides, chemical fertilizers, and agricultural salts and sediments are the primary non-point source of water pollution in the U.S.

- Cattle produce nearly 1 billion tons of organic waste each year. The average feedlot steer produces more than 47 pounds of manure every twenty-four hours. Nearly 500,000 pounds of manure are produced daily on a standard 10,000-head feedlot. This is the rough equivalent of what a city of 110,000 would produce in human waste. There are 42,000 feedlots in 13 U.S. states.[10]

## Depletion of Fossil Fuels

- Intensive animal agriculture uses a disproportionate amount of fossil fuels. Supplying the world with a typical American meat-based diet would deplete all world oil reserves in just a few years.[11]

- It now takes the equivalent of a gallon of gasoline to produce a pound of grain-fed beef in the United States. The annual beef consumption of an average American family of four requires more than 260 gallons of fuel and releases 2.5 tons of CO: into the atmosphere, as much as the average car over a six month period.[12]

## Global Warming

- Cattle and beef production is a significant factor in the emission of three of the four global warming gases — carbon dioxide, nitrous oxide, and methane.[13]

- Much of the carbon dioxide released into the atmosphere is directly attributable to beef production: burning forests to make way for cattle pasture and burning massive tracts of agricultural waste from cattle feed crops. When the fifty-five square feet of rain forest needed to produce one quarter-pound hamburger is burned for pasture, 500 pounds of CO: is released into the atmosphere.[14]

- CO: is also generated by the fuel used in the highly mechanized agricultural production of feed crops for cattle and other livestock. With 70 percent of all U.S. grain production now used for livestock feed, the CO: emitted as a direct result is significant.

- Petrochemical fertilizers used to produce feed crops for grain-fed cattle release nitrous oxide, another greenhouse gas. Worldwide, the use of fertilizers has increased dramatically from 14 million tons in 1950 to 143 million tons in 1989. Nitrous oxide now accounts for 6 percent of the global warming effect.

- Cattle emit methane, another greenhouse gas, through belching and flatula-

Farm Resource Materials

tion. Scientists estimate that more than 500 million tons of methane are released each year and that the world's 1.3 billion cattle and other ruminant livestock emit approximately 60 million tons or 12 percent of the total from all sources. Methane is a serious problem because one methane molecule traps 25 times as much solar heat as a molecule of $CO_2$.[19]

## Loss of Biodiversity

- U.S. cattle production has caused a significant loss of biodiversity on both public and private lands. More plant species in the U.S. have been eliminated or threatened by livestock grazing than by any other cause, according to the U.S. General Accounting Office (GAO).[20]

- Riparian zones — the narrow strips of land that run alongside rivers and streams where most of the range flora and fauna are concentrated — have been the hardest hit by cattle grazing. More than 90 percent of the original riparian zones of Arizona and New Mexico are gone, according to the Arizona State Park Department. Colorado and Idaho have also been hard hit. The GAO reports that "poorly managed livestock grazing is the major cause of degraded riparian habitat on federal rangelands."[21]

- Unable to compete with cattle for food, wild animals are disappearing from the range. Pronghorn have decreased from 15 million a century ago to less than 271,000 today. Bighorn sheep, once numbering over 2 million, are now less than 20,000. The elk population has plummeted from 2 million to less than 455,000.[22]

- The government has worked with ranchers to make cattle grazing the predominant use of Western public lands. The Bureau of Land Management (BLM) has long favored ranching over other uses. BLM sprays herbicides over large tracts of range eliminating vegetation eaten by wild animals and replacing it with monocultures of grasses favored by cattle.[23]

- Under pressure from ranchers, the U.S. government exterminates tens of thousands of predator and "nuisance" animals each year. In 1989, a partial list of animals killed by the U.S. Department of Agriculture's Animal Damage Control Program included 86,502 coyotes, 7,158 foxes, 236 black bears, 1,220 bobcats, and 80 wolves. In 1988, 4.6 million birds, 9,000 beavers, 76,000 coyotes, 5,000 raccoons, 300 black bears, and 200 mountain lions, among others, were killed. Some 400 pet dogs and 100 cats were also inadvertently killed. Extermination methods used include poisoning, shooting, gassing, and burning animals in their dens.[24]

- The predator "control" program cost American taxpayers $29.4 million in 1990 — more than the amount of losses caused by wild animals.[25]

- Tens of thousands of wild horses and burros have been rounded up by the federal government because ranchers claim they compete with their cattle for forage. The horses and burros are held in corrals, costing taxpayers millions of dollars per year. Many wild horses have ended up at slaughterhouses.

- For several years, cattle ranchers have blocked efforts to re-introduce the wolf, an endangered species, into the wild, as required by the U.S. Endangered Species Act.

FOOTNOTES

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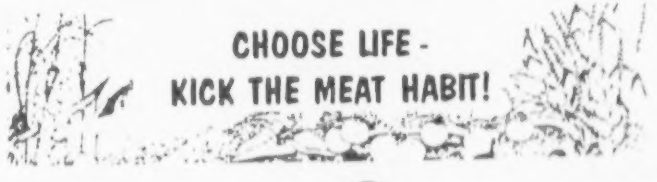

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Farm Resource Materials

# WHAT'S WRONG WITH FAST FOOD CHAINS?

McDonald's, Burger King, Wendy's, KFC, and other major fast food chains account for one half of all the food dollars spent away from home. Their menus determine what millions of people eat each day. Their massive purchasing power dictates how their foodstuffs are procured. They should be setting a high standard for the rest of the food industry. Instead, they maximize their profits on the backs of our children, the environment, and the animals.

## THE CHILDREN

Fast food chains encourage millions of children and others to consume large amounts of calories, cholesterol, saturated fat, salt, sugar, and other harmful substances. These have been linked conclusively with elevated risk of heart disease, stroke, cancer, and other chronic disease that cripple and kill over 1.5 million Americans annually. Most chains have spurned repeated pleas from health officials and public interest groups for a choice of more healthful plant based entrees.

## THE ENVIRONMENT

Millions of acres of tropical and domestic forests and wetlands have been leveled and drained to create pastures and croplands to feed the animals butchered for fast food hamburgers. This denies habitats to wildlife and recreation to humans and leads to major droughts. Irrigation of these pastures and croplands depletes precious drinking water supplies. Water running off these lands robs irreplaceable topsoil, turning millions of acres of lush cropland into desert. This runoff, along with waste effluents from animal farming and slaughterhouse operations, contribute more pollution burden to our waterways than all other human activities combined.

## THE ANIMALS

Last summer the British High Court held McDonald's (and presumably other fast food chains) "culpably responsible for cruel practices" in the treatment of pigs and chickens. In fact, nine billion cows, pigs, chickens, and other innocent, feeling animals are caged, crowded, deprived, drugged, mutilated, and manhandled each year in US factory farms and stockyards, largely to serve the fast food industry.

**GET INVOLVED! Call 888-FARM-USA**

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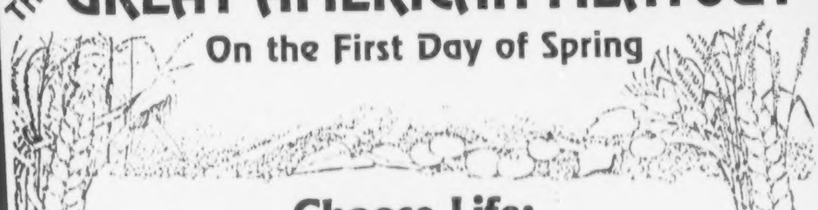
# THE GREAT AMERICAN MEATOUT

### On the First Day of Spring



## Choose Life: Kick the Meat Habit!

**For Yourself:** Your kicking the meat habit will reduce your risk of heart disease, stroke, cancer, and other chronic diseases that cripple and kill 1.5 million Americans annually. This has been documented by hundreds of studies and formalized in the *US Dietary Guidelines*. It will also raise your energy level, simplify your food preparation, and lower your food budget.

**For Your Children:** Your kicking the meat habit will help preserve topsoil, water, and other food production resources that are vital to the survival of your children and their children.

**For the Hungry:** Your kicking the meat habit will allow grains and soybeans now fed to animals to save the world's hungry people.

**For the Earth:** Your kicking the meat habit will help preserve our forests, grasslands, and other wildlife habitats and reduce pollution of our waterways by soil particles, debris, manure, and pesticides.

**For the Animals:** Your kicking the meat habit will save 35 innocent, sentient animals each year from caging, crowding, deprivation, drugging, mutilation, manhandling, and slaughter.

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- Learn the true costs of meat from the 'Meatout Reading' books
- Explore the meatless fare at many fine restaurants
- Join a local vegetarian society, and speak out for meat-free eating
- Make a generous contribution to help others learn about Meatout

### Meatout Reading

*Diet for a New America* by John Robbins; 1987; 424pp - $14

*Vegan - The New Ethics* by Erik Marcus; 1997; 210pp - $15

*Animal Factories* by Jim Mason & Peter Singer; 1990; 240pp - $13

*Vegetarian Times* (monthly) - $25/yr

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FROM Grolier Interactive Encyclopedia

## animal rights

The concept of animal rights has come to play an important role in several areas of concern over human treatment of other animals. These areas range from the hunting and trapping of animals, to obvious cases of mistreatment of work or sport animals or pets, to less apparent cases such as the widely accepted practices of animal experimentation for scientific purposes and factory farming. Concern further extends to broad ecological issues of human responsibility for the Earth's environment and the threat of extinction to many endangered species.

The question of whether or not animals have any inherent rights has often been raised in religion and philosophy. The cultural history of the relationship between humans and animals is complex, but a basic contrast might be made between cultural attitudes that have emphasized the unity of being and those which have placed humanity at the center of creation. In a religion such as Jainism, for example, all forms of life are considered to have souls and are therefore not to be injured. Judeo-Christian thought, on the other hand, has specifically limited the concept of the soul to humans, and the predominant trend of thought in the Western world has been to consider other forms of life as subservient to human needs and desires. With the advent of modern technology and the explosive growth of human populations, this attitude has come under serious attack by a number of persons active in the area of animal rights, for practical as well as ethical reasons.

The view of animals as nonfeeling creatures of reflex, as exemplified by Rene Descartes's philosophy of science in the 17th century, has long since been undercut by other philosophical approaches and by better understanding of evolution and animal behavior. Its effects are still observable, however, in some of the ways in which animals are used today, despite the efforts of numerous humane organizations such as the Society for the Prevention of Cruelty to Animals. Animal-rights activists in the 20th century have sought, with some success, to obtain better control over the use of animals in laboratories for scientific research and the testing of products (see vivisection). A number of activists would eventually ban such use altogether and would also promote the practice of vegetarianism.

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New York Times

## Blood Spill in England Raises 'Mad Cow' Fears

LONDON, Sept. 23 (AP) — Eight people were taken to a hospital today after a tanker carrying 22 tons of blood from cattle that were destroyed in an effort to eradicate mad-cow disease spilled some of the blood onto a highway.

The tanker was on a highway near Birmingham in central England when it leaked, the police said. Two of the highway's three lanes were closed while the blood was removed, causing long lines of traffic.

Police said eight people who had been splashed with blood — four firefighters, two police officers, the tanker driver and his wife — were taken to Walsall Manor Hospital to be cleaned up for fear of contamination.

Police Inspector Clive Isherwood said authorities believe that the blood came from older cows that were destroyed as part of the Government's campaign to eradicate bovine spongiform encephalopathy, commonly known as mad cow disease. The blood was also to be destroyed.

An official of the Agriculture, Fisheries and Food Ministry who spoke on condition of anonymity said that the chances were remote that the blood had been infected since many cattle more than 36 months old had been destroyed as a preventative measure and did not actually carry the disease.

The European Union banned British beef exports in March 1996 after Britain announced a possible link between mad-cow disease and the fatal, brain-wasting Creutzfeldt-Jakob disease, which has killed 27 people in Britain since 1995.

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one farm, many times the number on traditional farms.

The new methods are based on the contract farming system developed in the chicken industry. They have enabled some hog farmers to stay afloat in a pork market that has been dropping sharply.

On the other hand, some experts trace the lower prices to the increase in the number of hogs on the market, which is partly attributable to contract farming. There are also widespread complaints about the stench from the large farms.

The operations have also reduced, or perhaps elevated, to a science the quaint arts of animal husbandry that once made 4-H Club members beam with pride.

In the process, North Carolina has become the nation's second-largest hog producer, pushing its annual production to seven million hogs in 1993, up from two million a decade ago. (In 1993, total United States hog production was 50.7 million.)

But the hog industry has about hit its limits in North Carolina because of slaughterhouse capacity and the prohibitive cost of shipping feed from the Midwest's corn farms. Large contract growers like Murphy Family Farms are preparing to expand contract farming techniques into Iowa, the No. 1 hog-producing state, with 13 million hogs in 1993.

Barbara Grabner, assistant director of Prairie Fire, a farm advocacy group based in Des Moines, said the coming of the contract farms is "the hottest issue now" among Iowa hog farmers who take pride in their image as independent entrepreneurs but are looking for ways to become more efficient as market prices fall.

Ms. Grabner raised some of the same concerns that have been debated in North Carolina. "It's the scale of these operations and some of the environmental problems they may bring which makes people here nervous, even with our wide open spaces," she said. "They even smell different and worse than our traditional hog farms."

Because of the large concentration of animals, the area around a hog farm is saturated by a nose-wrinkling, ammonia-tinged smell of the animals even on crisp, windy days.

Most of North Carolina's 8,000 hog farms are in the eastern part of the state stretching between the Virginia and South Carolina borders. While the number of farms is down from 21,000 in 1984, production is up. Last year, hog operations in the state brought in $1 billion, making pork as valuable to the state as tobacco and chickens. And while many hog farms have shut down, some farmers say the contracting system has allowed their operations to stay alive.

"The company tells us everything we need to do for the pigs to perform properly," Mr. Rhodes said. He is guaranteed a flat fee regardless of the day's market price. "There's absolutely no risk here for me," he said.

Indeed, it is the company, not the farm, that owns the hogs. The farmers, however, buy the equipment and own the buildings.

Company-employed experts provide the farmers with stock that is genetically manipulated for leanness and rapid growth, and with custom-mixed feed in specific amounts needed from one week to the next.

By shifting risks away from the farmer, the contract concept has kept farmers like Jimmie and JoAnn Stroud in the farming business. They were barely staying afloat five years ago growing corn and tobacco on their 150-acre farm in Duplin County. Now, they run a 2,500-hog nursery under contract to Murphy Family Farms, tending the animals from the time they are 17 days old until they are about 10 weeks old.

"We tried to be independent with tobacco, corn and soybeans, but sometime you can just independent yourself into a hole," Mrs. Stroud said. "There are some out there who just want to be independent, but I don't mind taking the direction of the company. I'd rather have part of something than all of nothing."

Not everyone feels so kindly. Environmental groups say the quantum leap in the number of hogs on the farms is matched by an increase in environmental problems, including the constant odor, which some fear may be harmful. In fact, the state has created a Hog Odor Task Force to study whether there is any risk to farm workers or neighbors.

The potential hazards are much clearer when it comes to the large, odoriferous, man-made lagoons into which large farms pump the hog waste and allow it to sit and decompose. The nitrogen-rich waste water is then sprayed on fields as a fertilizer. The lagoons attract swarms of flies, and if the water is not handled properly in dry weather, heavy concentrations of waste in the water can get into ground water and contaminate the aquifers, and, when used in fertilizers, can kill crops and grass.

Dr. Leon Chesnin, a former University of Nebraska professor and an expert in waste management on hog farms, said small hog farms posed few risks to the environment because of the low concentration of waste. "It is entirely different with the large contract farms," he said. Lagoons are not leak-proof, and something the size of a municipal waste-treatment plant would be needed to render the waste totally safe, he said.

In Wilson, N.C., Ann Joyner, 58, told of what it was like to live within a mile of a 24,000-hog farm just outside town.

"The smell of hog manure, urine and ammonia and dust would just float all over and it made me so depressed and so angry," she said, noting that damp and rainy days were the worst. Last June, she said, she moved to town "to get away from it."

Wendell Murphy, the founder of Murphy Family Farms, a privately held company that started in the early 1960's as a feed and grain business, says he merely picked up on something that the chicken industry had been doing efficiently for years. "There's a stigma attached to it in some places," he said, "but it makes sense economically."

**Huge hog farms mean big dollars, and foul odors.**

Last fall, Successful Farming magazine rated the company as the largest pork producer in the United States, with 180,000 breeding sows producing an estimated 3.6 million marketable hogs a year.

John Morrison, president of the National Contract Poultry Growers Association, agrees that the contract farms are the wave of the future in the hog and other livestock businesses, but he fears that hog farmers will find themselves with problems that chicken farmers have endured. The contract system has turned many chicken producers into little more than low-paid employees of the large broiler companies, he said, totally dependent on a single company for a stream of birds to sell and pay their bills and subject to being squeezed by the company whenever necessary.

So far there have been few complaints from contract hog farmers of bad treatment. But, Mr. Morrison said, it is just a matter of time.

Mr. Morrison's organization recently started a new nonprofit foundation. "It's called the National Contract Growers Institute," Mr. Morrison said. "We named it that way because, like with chickens, we know the honeymoon will be over soon with hogs."

Source: Agricultural Statistics Board, U.S.D.A.

Charles M. Blow/The New York Times

Alan S. Weiner for The New York Times

A new, mechanized system of hog rearing has increased hog production in North Carolina. But critics have contended that the system, which uses huge farms, can cause environmental problems. Hogs stood in their pens on the farm of Barney and Joy Rhodes in Rose Hill, N.C.

The New York Times - * Date missing.

# Slopping the Hogs, the Assembly-Line Way

## Environmentalists Question a System

By RONALD SMOTHERS

Special to The New York Times

ROSE HILL, N.C. — Barney Rhodes gave up his father's poultry and corn farm in 1983, trading the risks of working on the land for a construction business.

But about two years ago, he started getting other ideas when farmer after farmer asked him to build long, low cinder-block buildings for a mechanized, assembly-line system of hog rearing.

"There was something big going on here," Mr. Rhodes said, "and so I got into the hog-contracting business myself a little over a year ago."

Now, Mr. Rhodes and his wife, Joy, own four long buildings packed with more than 5,000 grunting, snorting hogs that they feed for about 20 weeks, starting when the animals are about three months old and until they reach a market weight of 250 to 260 pounds. The couple run a finishing farm, one of 400 in North Carolina that tend hogs under contract with Murphy Family Farms, a local company that recently became the country's largest producer of hogs.

The "something big" that Mr. Rhodes spotted could be considered a revolution in livestock farming. It takes a method that had been spottily used — keeping the hogs inside, away from the elements — and raises it to a new level. The buildings are standardized, and the feeding, watering and cleaning up after the animals are done by automated equipment.

The hogs are bred in farrowing farms, where they stay for 17 to 20 days, until they are weaned; then they are moved to the nurseries where they stay for 10 weeks until they weigh about 50 pounds; finally they go to finishing farms like the Rhodes's.

The mechanization has meant that one farmer can do the work of what used to take dozens of laborers. And thousands of hogs can be raised on one farm, many times the number on traditional farms.

The new methods are based on the contract farming system developed in the chicken industry. They have

**HOW IT WORKS**

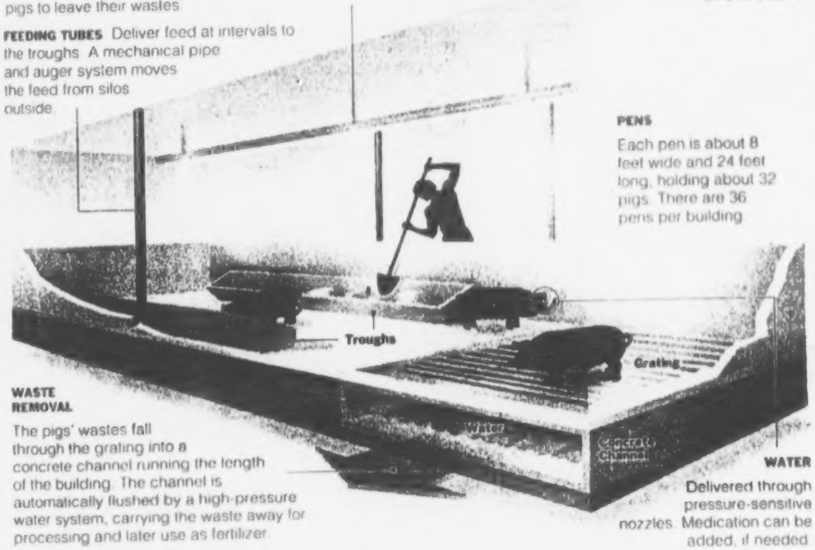
### No Straw, No Sticks, No Bricks: Concrete ... and Automated

Large hog finishing farms, contracted by companies to fatten a large number of hogs in a short time, are proliferating in North Carolina, while small hog farms are dying. Hogs generally arrive at a finishing farm weighing 50 pounds; four or five months later they leave, at about 250 pounds. This is how the farms work.

**AUTOMATIC SPRINKLERS** Turned on at intervals to clean the pen. Over the grating, the sprinklers keep the area wet, signaling the pigs to leave their wastes.

**STAFF** Mechanization allows a few people to maintain an entire farm.

**FEEDING TUBES** Deliver feed at intervals to the troughs. A mechanical pipe and auger system moves the feed from silos outside.



**PENS**

Each pen is about 8 feet wide and 24 feet long, holding about 32 pigs. There are 36 pens per building.

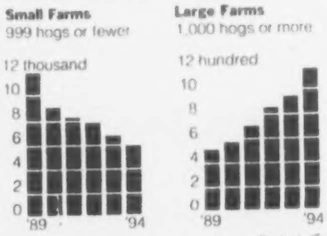
**WASTE REMOVAL**

The pigs' wastes fall through the grating into a concrete channel running the length of the building. The channel is automatically flushed by a high-pressure water system, carrying the waste away for processing and later use as fertilizer.

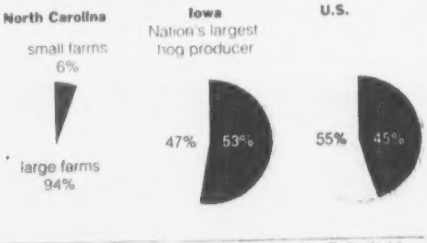
**WATER**

Delivered through pressure-sensitive nozzles. Medication can be added, if needed.

**Hog Farms in North Carolina**



**1994 HOG INVENTORIES BY FARM SIZE** As a percent of all hogs



Source: Agricultural Statistics Board, U.S.D.A.

Charles M. Blow/The New York Times

Wisconsin State Journal, Sunday, May 31, 1998

# A problem from farm to table

**■ Scientists fear that antiobiotics farmers are giving animals are creating drug-resistant germs.**

By Lauran Neergaard
Associated Press

WASHINGTON — Worried scientists say farmers using antibiotics in chickens, cattle and fruit orchards are creating drug-resistant germs that can wind up in the food people eat, a disturbing twist on the growing concern that antibiotics are fast losing their power.

Scientists have long suspected that farming was adding to the problem of antibiotic resistance, but now say they're finding the first strong evidence: A salmonella strain impervious to five antibiotics is rampant in Britain. U.S. scientists this month estimated that it has sickened thousands of Americans, too — including nearly killing a Vermont dairy farmer.

Chickens sold in Minnesota were contaminated with another germ, campylobacter, resistant to a powerful antibiotic.

The U.S. government is about to impose stiff requirements on makers of new animal antibiotics, and the World Health Organization is calling experts to Geneva this week to search for other solutions.

"We're at the point right now where we ... have got to do something," said Minnesota epidemiologist Michael Osterholm, who discovered the campylobacter risk. "This can't continue."

not," said Kenneth May of the National Broiler Council.

Others acknowledge some risk — but insist it must be balanced with the realization that antibiotics are vital to animal health.

If farm antibiotics are restricted, "the real question is, What will it do to the world's food supply?" said microbiologist Gail Cassell of Eli Lilly & Co. "My plea is that we need more data."

But the Food and Drug Administration considers the threat serious enough that it is preparing stiffer rules for new animal antibiotics, including requiring manufacturers to track treated animals for early resistance signs.

"There will be predetermined conditions of when the drug cannot be used anymore," said FDA veterinary chief Stephen Sundlof. The requirements "may just be too unpalatable for drug companies to accept."

Antibiotics are fast losing their power against numerous germs, particularly those spread in hospitals. Most to blame are doctors who overprescribe drugs and patients who take them improperly.

But scientists say antibiotics on the farm are helping food-borne germs mutate, too, even as the government is under pressure to approve more agricultural drugs.

Almost half the 50 million pounds of U.S.-produced antibiotics is used in animals — 80 percent to help animals grow faster, not treat disease — and 40,000 pounds are sprayed onto fruit trees.

Take fluoroquinolones, powerful antibiotics reserved for severely ill people until 1995 when in the food people eat, a disturbing twist on the growing concern that antibiotics are fast losing their power.

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"We're at the point right now where we . . . have got to do something," said Minnesota epidemiologist Michael Osterholm, who discovered the campylobacter risk. "This can't continue."

"We know there is a problem," agreed WHO's Dr. Klaus Stohr. The question is, How big a problem?

Some industry groups deny there's proof that antibiotics on the farm harm human health. "We don't know if it's true or

antibiotics, including requiring manufacturers to track treated animals for early resistance signs.

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Take fluoroquinolones, powerful antibiotics reserved for severely ill people until 1995, when the FDA approved two of them for poultry. They're put into chicks' drinking water to prevent a flock-destroying disease, not to kill the campylobacter also in poultry — the leading human

Please see **BACTERIA**, Page 2E

# Bacteria

Continued from Page 1E

food poisoner.

This new fluoroquinolone exposure caused campylobacter to rapidly mutate, said Osterholm. He tested 76 chicken products sold in Minneapolis-St. Paul grocery stores last year. Seventy-nine percent were contaminated with campylobacter, and 20 percent of those were fluoroquinolone-resistant.

People didn't catch this resistant campylobacter before 1995, said Dr. Frederick Angulo of the Centers for Disease Control and Prevention. But 13 percent of human cases tested last year were fluoroquinolone-resistant, and the number is rising.

Then there's the salmonella strain that almost killed a Vermont dairy farmer last summer, killed 14 of her cows and sickened eight of the farmer's relatives.

The CDC says the family caught salmonella DT104 — resistant to five popular antibiotics — by drinking unpasteurized milk and handling sick cows. Nobody knows how the cows got sick or how DT104 spread here. It's been widespread in Britain for a decade, causing outbreaks from sausage and chicken.

The CDC estimates the strain now infects 68,000 to 340,000 Americans a year.

Worse, salmonella DT104 in Britain appears to be losing its susceptibility to fluoroquinolones, raising concern it might become untreatable, Sundlof said.

The FDA is weighing this data in debating Bayer Inc.'s request to expand fluoroquinolones' use into cattle.

And the CDC is urging the Environmental Protection Agency to refuse a Mexican company's request to treat blighted fruit trees with gentamicin, a widely used human antibiotic.

Meanwhile, Europe last year banned an antibiotic used to spur animal growth. Avoparcin is closely related to the most carefully guarded human antibiotic, vancomycin.

Since the ban, preliminary evidence suggests vancomycin-resistant germs in poultry have dropped, said WHO's Stohr.

But antibiotics do promote animal growth, important for producing food, Stohr said.

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# Food For Thought, part II

*by debe becker*

*In the last issue of the Focus we showed you the many different ways food can become contaminated before it reaches your plate. Especially hard hit are fruits and vegetables.*

*Greens play such an important part of our diets. They add fiber to our system and supply us with essential vitamins. They can aid in treating symptoms of colds, flu, asthma, heart disease and in some cases prevent cancer.*

*Before modern medicine most ailments were treated by using herbs and teas.*

*Today, more and more people are turning towards natural medicine in their fight against sickness. They are also finding that food, nutrition and education are the best weapons against disease.*

*The following is a list of foods that have known to fight certain ailments.*

## Diet Prescription for High Blood Pressure

- The number one thing you can do is eat more fruits and vegetables of all kinds that are overflowing with known and unknown blood pressure lowering agents, including vitamin C, potassium and calcium. Vegetarians have striking low rates of high blood pressure.
- Eat garlic and celery.
- Fish is another good blood pressure deterrent. Especially mackerel, sardines, salmon and herring.
- Don't eat salt.
- Watch your alcohol intake. Limit your drinks to two a day.
- Loose weight if your are overweight.

## Diet Advice for Heart Patients

- Eat less fatty red meat and more fatty fish, high in omega-3 fatty acids.
- Eat garlic, onions and all kinds of vegetables and fruits to keep antioxidants in your blood.
- Use olive oil and canola oil.
- Limit alcohol and coffee to a couple of drinks or cups a day.

## Detoxifying Cholesterol

- Eat lots of fruits and vegetables, especially those that are high in vitamin C and beta carotene.
- Eat oils and nuts and seeds.
- Eat sardines and mackerel rich in ubiquinol-10.
- Consume foods high in antioxidant monounsaturated fatty acids, such as olive oil, almonds and avocados.

## An Antistroke Diet

- Eat lots of fruits and vegetables. Lots!
- Eat fish, especially fatty fish, at least 3 times a week.
- Watch salt intake.
- Drink green tea (found in Asian markets).

## Cancer Blockers

- Fish oil
- Cabbage, collard greens and other cruciferous vegetables.
- Garlic's ajoene and allicin (which may perform as chemotherapy against cancerous cells in general.
- Beta carotene in deep orange and deep green vegetables and fruits.
- Triterpenoids in licorice (which may stifle quick-growing cancer cells and cause some precancerous cells to return to normal growth.

## Breast Cancer

- Eat fatty fish and beans.
- Eat foods that interfere with the pro-cancer activities of estrogen. Including soybeans, cruciferous vegetable and wheat bran cereal.
- Eat a variety of green vegetables.
- Limit alcohol to 1 drink a day.
- Eat as Japanese women do. (8oz of fruit, 9 oz of vegetables, 3 oz of soybean product and 3 1/2 oz of fish. Very little meat, alcohol or milk).

## Colon Cancer

- High fiber diets. Wheat bran cereal is a good source.
- Stay away from red meat.
- Eat chicken and fish.
- Skim milk and no-fat yogurt.
- Stay away from beer.

## Fighting Asthma

- Eat anti-inflammatory foods, including onions, garlic, fatty fish, fruits and vegetables.
- Avoid vegetable oils such as as corn oil and safflower and sunflower seed oils.
- Eat hot peppery and spicy foods .
- In the case of an asthma attack when medication is not handy try strong black coffee.
- Stay away from shell fish, MSG (found in Chinese foods) and any food that has preservatives, dyes or coloring.

## Rheumatoid Arthritis

- Don't eat meat, especially bacon, pork and beef.
- Eat oily fish, such as salmon, herring, mackerel, sardines or tuna.

## Colds, Flus and Sinus

- Congestion means mucus in the bronchial tubes. The best way to start the cilia moving is by eating hot food.
- Sprinkle 10-20 drops of Tabasco sauce in a glass of water and drink it or gargle with it.
- Chew on a chili pepper.
- Eat a spicy Mexican meal.
- Add a whole peeled garlic clove to your soup.
- Chicken soup, the best remedy.
- Ginger destroys influenza viruses.

*Eating right can prevent old age from creeping up and give you the strength and energy for a full and productive life. Starting your children on a proper nutritional diet at an early age gives them a healthy beginning to their lives.*

*And remember that most of the nutritional value lies in our fruits and vegetables. Keeping them pesticide free should be our number one goal. Let your grocery know what types of food you want them to carry - and above all be a label reader. Education is your best weapon for better nutrition.*

*For more information on the power of food read "Food Your Miracle Medicine" or "Food Pharmacy" by Jean Carper.*

Humane Education Committee Resource Material:

## SECTION 8

# CHOOSING YOUR DAILY DIET

Many people in America and in the richer Western countries eat a "meat and dairy foods every day" diet. However, as more people learn about the health benefits of eating less saturated fats, less cholesterol and more vegetables, fruits and grains, other types of diets are becoming increasingly popular in American society.

The most popular alternative diet is one in which people reduce the amounts of meat and dairy foods in their diet. They do not eat these foods every day, but instead eat more vegetables, fruits, legumes and grains.

The next most popular diet is called a "vegetarian diet." Vegetarians do not eat any type of meat: no red meat, no poultry, no fish. Some vegetarians, called "ovo-lacto vegetarians" will eat eggs and dairy foods. Sometimes, people will eat eggs and not dairy foods, or vice versa, depending on the reasons they decided to become vegetarian.

Some people, for health and/or ethical reasons, follow what is called a "vegan diet." Vegans are people who eat no meat, eggs or dairy products. A healthy vegan diet can help in reducing cholesterol levels, because plant foods contain no cholesterol.

## What do "vegans" eat?

For breakfast, they might enjoy cereals, oatmeal, whole grain breads and fruits. For lunch, they eat salads, vegetable soups, veggieburgers, falafel, peanut butter sandwiches, eggplant fritters, potato pancakes, noodles, vegetable fried rice, etc. For dinner, they might make spaghetti with marinara sauce, bean burritos, chili, or vegetable lasagna with soft tofu instead of ricotta cheese. For dessert they eat puddings made with soy milk,(not cow's milk), raisin oatmeal cookies or fruits.

## How do they manage to eat "vegan-style" in a restaurant?

When eating out, vegans often go to Chinese, Italian or Indian restaurants, which offer many vegan dishes. In American-style restaurants they might ask for sauteed or steamed vegetables with a baked potato or rice or make their meal a big bowl of vegetable, bean or lentil soup and a heaping plate of vegetables from the salad bar (skipping the high-fat dressings!)

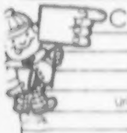
## What about fast-food restaurants?

People eating "vegan-style" usually prefer to avoid fast-food restaurants. Most of their items contain meat and/or dairy foods and often also too much saturated fat. But if their friends want to go out for pizza or a hamburger, vegans don't _have_ to stay home! At pizza places, they can order pizza without the cheese and with lots of vegetable toppings. At hamburger chains, they can often find onion rings and french fries that have been cooked in vegetable oil, not animal fat. In Mexican fast-food restaurants vegans can order bean burritos, tacos and rice with guacamole (avocado dip) and salsa (tomato/onion relish.) However they must check that the bean mixture does not have lard (animal fat) mixed with it. In some restaurants there are baked potatoes with toppings and nowadays, there are salad bars and juices available in many fast-food restaurants, including the big hamburger chains.

HANDOUT 4a

Your homework assignment is to examine your food journal for fat for healthy and non healthy food choices. You must organize this information into a chart. To get you started complete the following exercises and examine the following information.

## Healthy Choices



| Choose this: | Instead of this: |
|---|---|
| Vanilla wafers | Oreo cookies |
| Seltzer | Soda |
| Pretzel rods | Potato chips |
| Unbuttered popcorn | Corn chips |
| Chocolate ice | Chocolate ice cream |
| Angel food cake | Frosted cake |
| Peanuts in shell | Salted, canned peanuts |
| Peanut butter on plain crackers | Peanut butter sandwich cookies |
| Frozen grapes or banana chunks | Candy bar |
| Fruit juice spritzer (½ juice/½ seltzer) | Iced tea, Kool-Aid |
| Lowfat or skim milk* | Whole milk |
| Frozen fruit bar | Chocolate covered ice cream bar |
| Small box of raisins | M & M's |
| Lowfat chocolate milk* | Whole chocolate milk or chocolate flavored drink |
| Nutrigrain, Cheerios, Puffed Wheat or Rice | Sugar coated cereals |
| Celery stuffed with cottage cheese or peanut butter | Hard candy |

*Lowfat choices not recommended for children under two years of age

## Some Additional Snack Ideas

**Peanut Butter Favorite**
Spread one slice of toast with 1 tbs. of peanut butter and top with ½ small banana sliced

**Tuna Melt**
1 small sesame pita stuffed with 1 oz. tuna and 1 oz. cheese. Brown in toaster oven

**Bagel Pizza**
Top ½ small toasted bagel with 1 [illegible] skim mozzarella cheese and [illegible] of pizza sauce. Brown 2 minutes in toaster oven

**Cheesy Popcorn**
Sprinkle 2 tbs. of grated cheese over 3 cups of unbuttered popcorn. Quench your thirst with ½ cup orange juice plus seltzer

**Banana Crunch**
Place ½ banana on a popsicle stick. Dip in a mixture of chopped peanuts, wheat germ and crushed dry cereal. Serve as is, or freeze first

**Easy Trail Mix**
½ cup of cold cereal (such as Cheerios, Spoon-sized Shredded Wheat, Bran Chex, Puffed Wheat, and/or Puffed Rice), 2 tbs. nuts or seeds, 2 tbs raisins. Combine and divide in small sandwich bags

## Anytime

- Fresh fruit
- Raw vegetables
- Bagels
- Custards or pudding
- Cereal with lowfat milk
- Lowfat yogurt
- Lowfat hard cheese
- Fig Newtons
- Plain crackers

## TRIM TEEN SMART FAST FOOD CHOICES

| Choose this: | Instead of this: |
|---|---|
| Small bran muffin, english muffin or bagel | Pastries, croissants, biscuits or doughnuts |
| Cereal with lowfat milk. | Anything with butter or syrup. |
| Plain hamburger. | Cheeseburger with bacon or "super" anything. |
| Plain baked potato (or share the bag of fries with a friend). | French fries. |
| Chicken (remove the skin or coating - better yet, skip it). | Fried chicken, fish or fried anything. |
| Salad with lite or reduced calorie dressing. | Salad with thick creamy dressing. |
| Thin crust pizza, plain or with vegetables. | Pizza with sausage, pepperoni or extra cheese. |
| Soft corn tortillas, burrito, fajitas or taco. | Tortilla chips, chimichangas or refried beans. |
| Ginger snaps, fig bars, graham or animal crackers. | Cookies. |
| Frozen fruit bar or fresh fruit (bring from home). | Ice cream or cake. |

### More Snack Ideas

Rice cakes, Cereal, Fruit, Popcorn (air-popped)
[illegible]

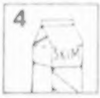
*Sources missing

## How to do it...

Choose leaner cuts of meat — it is **not** necessary to cut meat out completely — use ground round (95% lean or better), ground turkey, top round or flank steak, center loin pork, shoulder veal roast. Serve fish and poultry with skin removed, more often.

Limit the number of eggs in the child's diet. Two to four eggs per week is recommended. In addition, use egg white as often as desired for omelets and in pancakes, waffles, cake mixes, muffins, etc.

Substitute margarine for butter. Use a tub of soft margarine, with a liquid vegetable oil as its first ingredient on the label (soybean, safflower or corn are acceptable choices of oil in margarine products).



Read labels for fat content of foods. Choose low fat dairy products whenever possible: skim or low fat (1%) milk, cheeses with less than 5 grams of fat per ounce, 1% cottage cheese, part skim mozzarella, low-fat or non-fat yogurt. Limit use of cream cheese, regular hard cheeses, non dairy whipped toppings, chocolate milk.

Choose lower fat cookies and plain cakes **without** cream or frosting. Animal crackers, graham crackers, gingersnaps, oatmeal raisin bars, fig bars, homemade fruit breads (banana, date, etc.) are all suitable.

Choose frozen fruit juice bars, sherbert, ice milk, sorbet, or frozen yogurt instead of ice cream for dessert or snacks.

Read labels to avoid buying processed foods made with coconut or palm oils (very high in saturated fats), or high sodium content (more than 250 mg sodium per serving).

Provide children with a low saturated fat breakfast to offset the possibility of a "less than healthy" lunch: low fat cottage cheese on english muffin, peanut butter on whole wheat toast, cereal with low sugar and salt content such as Total, Rice Krispies, Corn Flakes, Shredded Wheat, Cheerios, Nutrigrain, Grapenuts, Wheaties, Kix, Puffed Wheat, Life, Bran Flakes.

Limit use of fast food restaurants to once per week or less.

Use low fat cold cuts (turkey based products) instead of regular high fat types such as liverwurst and bologna.

Choose **nutritious** snacks for after school: fresh fruits (cut up), peanut butter in celery or on an apple, popcorn with small amount of margarine (or use butter buds for butter flavor), low fat low sugar yogurt, frozen banana, puddings made with skim milk, cut up vegetables with a low fat dip, tofu based desserts (tofutti), nuts/seeds — occasionally, and dried fruit in moderation.

……

### Also...

Eat less potato or corn chips and all other foods with visible salt or high fat content: Ritz crackers, cheese flavored crackers or snacks.

**Note**: These dietary guidelines are also recommended for adults.

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# BE A TRIM TEEN...

**1. Be sensible about your goals.** Maintaining your present weight while you grow or losing 1/2 to 1 pound per week is achievable. That's 25-50 pounds in a year!

**2. Changing eating and exercise habits can help you:** Be healthy, feel great, look great, and lose weight too.

Quick weight loss fads, liquid diets and pills make tempting promises, make lots of money for their creators, and occasionally, dramatic short-term results, but do little for you in the long run.

**3. Be active, it's fun.** Find your thing: team sports, dancing, biking, skating, swimming, hiking. Exercise burns fat and builds muscle. Dress for it, move your body, feel great. Do it with friends.

**4. Down with fats (heavy calories)!** Fats are found in greasy, oily, fried, cheesy, and creamy foods. Fats make it hard to lose weight.

**5. Up with complex carbos!** Complex carbohydrates are found in foods such as bread, rice, fruit, vegetables, beans, spaghetti. They are the best fuel for your body. Look out for too many sweets (simple carbos) such as candy, cookies, fruit drinks, sodas.

**6. Have your chips and lose weight too!** Sound like the latest fad? Portion size and how often you eat these high caloric, low nutrient foods make all the difference.

*1 small bag (1 oz.) potato chips = 150 calories*

*1/2 large bag (3 oz.) potato chips = 450 calories*

On birthdays, weekends and special occasions, stick to one serving of your favorite high caloric foods. Taste it; enjoy it.

**7. Be careful about food traps** (places or situations that result in high caloric eating) such as the movies, malls, in front of the TV, in the streets, out with friends. Plan your eating; remember your goal.

**8. Are you hungry?** Eating for the wrong reasons can result in too many calories. Does boredom, frustration, loneliness, TV commercials or the sight of food lead you to the fridge or candy store? Eating doesn't solve problems.

Instead of eating, keep your eyes on your goal. Wait ten minutes. Do something else.

**9. Get a little help from your friends.** Have an exercise buddy instead of a binge buddy. Let your family and friends know how they can support you. No nagging please!

**10. Keep your eyes on your goal.** When cravings crop up or you feel you've really blown it, remind yourself of your reason to lose weight. Get back on track now. It's never too late!

# Guid[illegible]To Healthy Foods

1 No one food gives you all the nutrients you need. The best way to stay healthy is to eat a wide variety of foods each day:

— Fruits and vegetables - 6 or more servings

— Low or nonfat milk and dairy products - 2-3 servings

— Whole grain breads, cereals, and other grains - 6 or more servings

— Protein foods (fish, skinless poultry, lean meat, dried beans and peas, eggs, and tofu) - 2 servings of about 3 ounces each

2 Obesity increases the risk for many diseases, including heart disease, high blood pressure, diabetes, and some cancers. If you are overweight, avoid quick weight loss and fad diets. Instead, speak to your physician or nutritionist about a healthy food and exercise plan that will result in slow but permanent weight loss.

3 Egg yolks, along with organ meats, are not the only sources of dietary cholesterol, but they are the two highest sources. Cholesterol is found in all foods of animal origin. Elevated blood cholesterol is a risk factor for heart disease. Cholesterol levels are affected by saturated fats, cholesterol in foods and cholesterol produced by the body.

4 All foods listed are high in satur[illegible]ed fats and total fat. With the exception of tropical oils (coconut and palm oils), saturated fats are found in all fats that are solid at room temperature. Where saturated fats tend to raise blood cholesterol, monounsaturated fats such as olive and canola oils, and polyunsaturated fats such as corn, safflower, sesame, soybean and sunflower oils, tend to lower it. When choosing margarine make sure the first ingredient is one of these acceptable oils.

5 A diet low in total fat may reduce the risk for some cancers and may also reduce the risk of heart disease. Total fat intake should be limited to no more than 30% of your daily intake.

6 Yes, even grownups need at least 2 sources of calcium every day. Postmenopausal women may need even more. Look for nonfat or lowfat milk, yogurt and cheeses with less than 5 grams of fat per ounce. Nondairy sources of calcium include salmon (with bones), tofu, and leafy dark green vegetables.

7 Fiber (your mother may have called it roughage or bulk) is found in fruit, vegetables and grains. There are two different types of fiber. Soluble fiber is found in oats, oat bran, dried beans and some fruits and vegetables. It may help lower cholesterol in some people. Insoluble fiber, found in wheat bran, vegetables and whole grains, helps prevent and treat constipation and diverticulosis and may even prevent colon cancer. Both types of fiber belong in your diet every day as both play a role in health and well being.

8 Sugary foods are usually high calories and fat and low in nutrient Excess sugar in your diet can lead tooth decay and obesity. Check foo labels on processed food for the common types of sugar: sucros fructose, dextrose, maltose, co syrup, invert sugar, and honey.

9 Sodium is an essential mineral th occurs naturally in most foods, or can be added during processin cooking, or at the table. Table salt 40% sodium and 60% chloride. I susceptible people, too much sodiu in the diet can contribute to hig blood pressure. To avoid exce sodium, hide the salt shaker an become a label reader avoiding foo with the words salt or sodium o the label.

10 Drinking alcoholic beverages in excess (more than 2 ounces a day) ca lead to many health problems. Heav drinking is associated with cancer of the mouth, throat, esophagus, an liver. Alcoholic drinks are also hig in calories and low in vitamins an minerals.

11 The water you drink is as importan as the food you eat. Water aids digestion, carries nutrients to cells lubricates joints, promotes good skin tone, and has many other importan functions. In addition to the water in such foods as fruits and vegetables, you also need to drink 6-8 glasses of liquid each day. Plain water is best. Caffeine containing drinks (coffee, tea, cola) and alcoholic beverages do not count as they are diuretics that remove water from the body.

12 Regular aerobic exercise is one of the best things you can do for your health and well being. Aerobics condition your heart and lungs, help you use oxygen more efficiently and help control weight and stress.

* Source Missing

2. Circle the HEALTHY food choices from the group of foods listed below:

[illegible]    baked potato    corn chips    [illegible]

skim milk    apple    rice and beans    fried chicken

french fries    salad    natural peanut butter    oatmeal

cola    orange juice    cupcake    frosted flakes cereal

milkshake    popcorn    steamed vegetables    canned vegetables

FARM Resource Materials

# Our Planet on Your Fork

## Lesson Plan: Grades 8-12

**Skills:** Reading comprehension; deduction and inference; identification of continents and countries

**Objectives:** Students will identify foods from different parts of the world (Lebanon, China, India, Mexico)
Students will identify three factors affecting regional diet: environment (climate and topography), social/economic conditions, religion/philosophy
Students will compare the environmental impacts of producing meat vs. plant-based foods

**Vocabulary:** Couscous, tabouli, falafel, cuisine, plant-based, climate, topography, economic

**Materials:**
World map
Desk sized world map for each student
*Activity Sheets 1 and 2(enclosed)*

**Introduction (5 min, suggested script):** "Because America is a melting pot of different cultures, we have access to a wide variety of foods from all over the world. In fact, most of us probably eat foods that originated in two or three different countries in a given week. Name some common foods that originated from other countries [examples: pasta, burritos, cous cous, stir fried vegetables, pita bread, tabouli and falafel.] Each of these foods was created to suit the geography, social circumstances, and religious or philospohical values of its country of origin.

"Today we're going to explore the traditional foods of four different countries and learn about the environmental, economic, and religious or philosophical factors that led to the creation of these dishes.

"One thing all four of these countries have in common is that meat is not a major portion of the traditional diet. In most parts of the world, meat is a garnish or condiment. This is often because vegetables and grains are much easier and cheaper to produce and store, especially in warm climates [environmental and economic factors]. In a few cultures, meat isn't eaten at all for philosophical and religious reasons [philosophical/religious factor]. In the United States, meat is generally a much larger part of the diet. While meat production has the same environmental and economic impacts here as it does in other countries, we are a relatively wealthy country, and better able to withstand these impacts for the time being. As we explore the causes and results of food choices in other parts of the world, we will also explore the wide social and environmental impacts of our own daily food choices.

**Group Activity (10 min):**Distribute desk maps and ***Activity Sheets 1 and 2.*** Have students identify the four key countries (Lebanon, India, China, Mexico) on the classroom map and label them on their desk maps. Have them identify foods that originated in each country, if they know of any.

**Independent Practice (30 min. or homework):**
Have students read ***Activity Sheets 1 and 2*** silently or aloud, and follow the directions on the sheet.

**Evaluation (10 min):** Review ***Activity Sheets 1 and 2*** in class

**Closure:** "Whenever you have an opportunity, try a restaurant that serves ethnic foods. Think about the climate, economic, and philosophical factors that made each dish important to its region"

**Follow-up:**
Have an "International Food Fair:" prepare meatless dishes from many countries
Invite a vegetarian student to share his or her reasons for choosing vegetarianism
Have students research a country experiencing famine and suggest a suitable farming program for that nation.

**Name:** ______________________________ **Date:** ____________________

**Our Planet On Your Fork** ◁**Activity Sheet 2**

# The Power of *Your* Choices

**Directions: Use the passage and chart below to answer the questions at the bottom of the page.**

## Our Food Our Planet*

You have learned that the environment plays an important role in the foods that are available in certain regions. Likewise, the the foods we eat play an important role in the condition of our planet. Our choice to eat a certain food affects the climate and economy of the place that food came from.

The typical American diet is meat-centered. This reflects a strong influence from colder climates like that of Northern Europe. People in extremely cold climates tend to eat more meat and fish than people in warmer climates, in part because fresh vegetables and fruits are scarce in cold climates. The meat-centered diet also reflects the perceived affluence of American society, because meat is more expensive to produce and store than vegetables, grains, and fruits.

An estimated three-fourths of the world's population follows a plant-based diet that is economically and ecologically sound. Most of these people live in developing nations, where resources are scarce and the economy cannot support the extra costs of producing and storing large amounts of meat. Still, these nations are anxious to prove they can keep pace with the US. Developing countries are "Americanizing" their diets by importing meat and setting up American fast food chains in major cities.

Environmentally, the export of American eating habits is a dangerous trend. If developed nations like the U.S. moved towards the more sustainable plant-based diet of less developed countries, this would help preserve the world's dwindling resources.

Societies observing plant-based diets require far less resources for food (see chart). With few exceptions, land that is growing grain for livestock could be growing grain for humans, or left unplowed to anchor topsoil and hold moisture. In the mid-1990's, the world narrowly survived a major shortage of corn, wheat, and other grains. If the "Americanization" of developing countries continues, another crisis will follow.

*Heavily excerpted from *Healthy School Lunch Action Guide* p. 149. References available from FARM (see Teacher Page 2).

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**Chart: 1990 per Person Grain Use and Consumption of Livestock Products (lbs).**

| Country | Grain | Beef | Pork | Poultry | Mutton | Milk | Cheese | Eggs |
|---|---|---|---|---|---|---|---|---|
| US | 1,780 | 93 | 62 | 97 | 2 | 597 | 26 | 35 |
| Italy | 880 | 35 | 44 | 42 | 2 | 401 | 26 | 26 |
| China | 660 | 2 | 2 | 46 | 7 | 2 | 9 | 15 |
| India | 440 | - | 0.04 | 0.4 | 0.2 | 68 | - | 29 |

**Notes:** Grain use is rounded to nearest 10 lbs. Milk includes that used to produce cheese, yogurt, and ice cream.

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**Questions:**

How much of the world eats a plant-based diet?
What is the Americanization of developing countries?
Which country uses the most grain? Consumes the most livestock products?
Which country uses the least grain? Consumes the least livestock products?
How do your food choices affect land use?

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***Our Planet On Your Fork*** *is distributed by* FARM *in celebration of* The Great American Meatout. *Information and recipes are available from 1-800-MEATOUT; Meatout, PO Box 30654, Bethesda MD 20824; or www.meatout.org.*

FARM Resource Materials

**Name:** ______________________________ **Date:** ____________________

## Our Planet on Your Fork ◁Activity Sheet 1

# Regional Cuisines of Four Countries

**Directions: Read the following passage. Answer the questions on your own paper.**

The traditional diet of a particular country is shaped by three types of factors. **Environmental factors** (climate and topography) generally play the most important role. Meals will include ingredients that can be grown nearby, according to the warmth and amount of water available. **Economic conditions** are another factor in food availability. Where there are many people to feed, most meals will include only ingredients that can be grown with minimal resources and stored conveniently. Meat requires a lot of land and energy, so it is more expensive than vegetables and grains, and not readily available to the less wealthy classes in many countries. **Religion** also dictates food choices. Many religions state specifically that followers should avoid some or all meat. The four countries discussed in this passage are known for meatless recipes that suit their local weather, economy, and religion.

**Lebanon** is a small country near Greece, on the Mediterranean Sea. The primary crops are wheat, barley, grapes, and olives. Traditional Lebanese foods include pita bread, tabouli (a salad made with wheat and parsley), and hummus (a dip made from chick peas). Olive oil is used in most Lebanese dishes.

**China** has the world's largest population to feed. China has more than fifty thousand rivers, which provide lush and fertile farmland. The far southern region is the most humid, with lush rain forests, bamboo groves, and rice paddies. A traditional Chinese stir fry may include a wide variety of vegetables, including lotus roots, bamboo shoots, soya sprouts (from soybeans), yams, leeks, water chestnuts, and radishes.

**India**, located in Southern Asia, is the birthplace of Buddhism and Hinduism. Buddhists are vegetarian out of reverence for all forms of life. Many Hindus also consider vegetarianism to be an important aspect of *dharma* (righteous living). Central India contains an enormous plain irrigated by three rivers. This is the best farmland in India. India is known for flatbreads and fruity or spicy curries.

**Mexico**, located at the southern tip of North America, is hot and dry . Beans and corn form the basis for a wide range of mexican foods. Corn is often ground into flour and shaped into tortillas which make a handy wrapper for a taco, burrito, or fajita.

**Questions:**

1. What are the three main factors that shape food traditions?
2. What are three traditional Lebanese foods?
3. What are two main ingredients in Mexican food?
4. Where is the most fertile farmland in India?
5. Why is food a precious resource in China?

**Bonus Research:**

What animal is sacred in the Hindu religion?
What famous vegetarian peace activist was born in India?
What are dolmas? (Hint: research mediterranean and middle eastern countries.)

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FARM Resource Materials

# Ethnic/Vegetarian Cookbooks:

**The Vegan Gourmet** by Susan Geiskopf-Hadler and Mindy Toomay. Features stir fries and mediterranean dishes. 1995, Prima Publishing, Rocklin CA. $14.95 from bookstores or FARM (1-800-MEATOUT).

**The New Farm Vegetarian Cookbook** edited by Louise Hagler and Dorothy R. Bates. Features burritos, curry, and Greek salad. 1995, The Book Publishing Company, Summertown, TN. $8.95 from bookstores or The Book Publishing Company (1-800-695-2241).

**Tofu Cookery** by Louise Hagler. Features sweet & sour balls, falafel, and guacamole. 1991, The Book Publishing Company, Summertown, TN. $14.95 from bookstores or The Book Publishing Company (1-800-695-2241).

**The American Vegetarian Cookbook** by Marilyn Diamond. Features dolmas, tostadas, and a wide variety of traditional foods from all over the world. 1990, Warner Books, NY, NY. Available from bookstores.

# Additional Resources:

**Great American Meatout/ FARM:** The **Our Planet on Your Fork** Lesson Plan Kit is produced and distributed by FARM in celebration of The Great American Meatout, the nation's largest annual grassroots dietary education campaign. Meatout's goal is to encourage people to explore the many benefits of plant-based eating.

FARM is a national grassroots education organization located in our nation's capital. FARM offers a wide variety of brochures, books, and videos on plant-based eating and humane treatment of farm animals. FARM also distributes **The Healthy School Lunch Action Guide,** a comprehensive resource for improving meals in schools. **Write or call Great American Meatout, Box 30654, Bethesda MD 20824; 1-800-MEATOUT.**

**Earthsave International** promotes environmentally sustainable living and youth activism. **Write or call: Earthsave, 600 Distillery Commons, Louisville KY 40206; 502-589-7676.**

**Farm Sanctuary** maintains farm animal sanctuaries on the east and west coasts, and an educational center in upstate New York. They offer classroom suitable materials and can schedule speaking assignments. **Write or call FS, Box 150, Watkins Glen, NY 14891; 607-583-2225**

**Physicians Committee for Responsible Medicine** offers **The Gold Plan,** a comprehensive cafeteria menu program for schools. **Write or call: PCRM, Box 6322, Washington DC 20015; 202-686-2210.**

**Vegetarian Resource Group** offers institutional recipes for school cafeterias. **Write or call VRG, Box 1463, Baltimore MD 21203; 410-366-VEGE.**

# On the World Wide Web:

Earthsave: **www.earthsave.org**
Meatout: **http://www.meatout.org**
Vegetarian Resource Group: **http://www.vrg.org**
Veggies Unite!: **http://www.vegweb.com**
Vegsource **http://www.vegsource.com**
World Guide to Vegetarianism:
**http://www.veg.org/veg/Guide/index.html**

From humble beginnings in 1985, the Great American Meatout has grown explosively to involve thousands of consumer, environment, and animal protection advocates in over 2,000 communities and all 50 states. They arrange educational events, ranging from simple exhibits and information tables, called 'steakouts,' to cooking demonstrations, public dinners, and colorful 'lifestivals.' They ask their friends and neighbors to "kick the meat habit on March 20, at least for a day, and to explore a more wholesome, less violent diet."

The growth of Meatout has been reflected in important US dietary trends:

- More than 30 million Americans have explored a meatless diet
- Vegetarianism is 'in' with teens, who are 'kicking the meat habit' at a record rate
- National beef and veal consumption have dropped 25 and 70 percent, respectively
- Major manufacturers, markets, and restaurants are marketing meatless meals
- Mainstream health advocacy organizations are touting plant-based eating
- US *Dietary Guidelines for Americans* have endorsed vegetarian diets.

The Great American Meatout is coordinated nationally by FARM, a nonprofit, public-interest organization formed in 1981 to promote planetary health through plant-based eating. All events are planned and conducted by local activists. For more information, see http://www.meatout.org.

**"Choose Life: Kick the Meat Habit"**

FARM Resource Material

PETA Resource Material

# Compassionate Cooking

One of the easiest ways to show your compassion for animals is to stop eating them! More than 12 million vegetarians live and eat in the United States today, and 1 million more make the switch to a meat-free diet every year. According to *Meat Marketing & Technology*, three-quarters of all food shoppers are "practicing some degree of vegetarianism." And while sales of most foods increase by 3 percent to 5 percent a year, sales of meat substitutes increased by an amazing 35 percent in 1995!

> *"Animals are my friends ... and I don't eat my friends."*
>
> GEORGE BERNARD SHAW

**Why's everyone vegging out?**

Caring people do it for animals. On factory farms, animals are crammed into tiny stalls and cages, subjected to painful procedures like debeaking and castration without anesthesia, pumped full of hormones and antibiotics, and then callously shipped off to slaughter. Every year, more than 8 billion animals are killed for food in the United States alone; millions more die of stress, suffocation, injuries, or disease before even reaching the slaughterhouse. The average meat-eater is responsible for the suffering and deaths of more than 2,400 animals in a lifetime!

Heart-smart consumers do it for their health. Meat consumption is now indisputably linked to heart disease, cancer, diabetes, osteoporosis, obesity, and other deadly diseases. Animal foods are the leading sources of fat in Americans' diets and the only sources of cholesterol (plant foods are 100 percent cholesterol-free)!

Environmentalists do it for the Earth. Meat, egg, and dairy production consumes one-third of all the raw materials used in the United States, and waste from factory farms and slaughterhouses flows into streams and rivers, contaminating water sources. Millions of acres of trees in the United States have been cut down to grow crops to feed cows, pigs, and other animals raised for meat. Each vegetarian saves one acre of trees every year.

An additional benefit to going meat-free: A whole new world of great-tasting foods! Veg fare can be everyday or exotic, easy or elegant. These recipes will help whet your appetite. Happy eating!

terial/

# getarian Foods erful for Health

NU is a powerful and pleasurable way
th. The vegetarian eating pattern is
of foods that are satisfying, delicious,

meat, fish, and poultry. Those who
and eggs in their diets are called lacto-
is (pure vegetarians) eat no meat, fish,
products. While there is a consider-
o-ovo vegetarian pattern, vegan diets
ll, reducing risk of a broad range of

much lower cholesterol levels than
disease is uncommon in vegetarians.
hard to find. Vegetarian meals are
ed fat and usually contain little or no
esterol is found only in animal prod-
y, and eggs, vegans consume a choles-

s in a vegetarian diet may be another
Many studies show that replacing
ant protein lowers blood cholesterol
ount and type of fat in the diet stays the
ow that a low-fat, vegetarian diet has
other diets.

## Lower Blood Pressure

An impressive number of studies, dating back to the early 1920s, show that vegetarians have lower blood pressure than non-vegetarians. In fact, some studies have shown that adding meat to a vegetarian diet raises blood pressure levels rapidly and significantly. The effects of a vegetarian diet occur in addition to the benefits of reducing the sodium content of the diet. When patients with high blood pressure begin a vegetarian diet, many are able to eliminate their need for medication.

## Controlling Diabetes

The latest studies on diabetes show that a diet high in complex carbohydrates (which are found only in plant foods) and low in fat is the best dietary prescription for controlling diabetes. Since diabetics are at high risk for heart disease, avoiding fat and cholesterol is the most important goal of the diabetic diet, and a vegetarian diet is ideal. Although all insulin-dependent diabetics need to take insulin, plant-based diets can help to reduce insulin needs.

## Cancer Prevention

A vegetarian diet helps prevent cancer. Studies of vegetarians show that death rates from cancer are only about one-half to three-quarters of those of the general population.

Breast cancer rates are dramatically lower in countries where diets are typically plant-based. When people from those countries adopt a Western, meat-based diet, their rates of breast cancer soar.

Vegetarians also have significantly less colon cancer than meat eaters. Meat consumption is more closely associated with colon cancer than any other dietary factor.

Why do vegetarian diets help protect against cancer? First, they are lower in fat and higher in fiber than meat-based diets. But other factors are important, too. For example, vegetarians usually consume more of the plant pigment beta-carotene. This might help to explain why they have less lung cancer. Also, at least one study has shown that natural sugars in dairy products may raise the risk for ovarian cancer in some women.

Some of the anti-cancer aspects of a vegetarian diet cannot yet be explained. For example, researchers are not quite sure why vegetarians have more of certain white blood cells, called "natural killer cells," which are able to seek out and destroy cancer cells.

## The Calcium Connection

Vegetarians are less likely to form either kidney stones or gallstones. In addition, vegetarians may also be at lower risk for osteoporosis because they eat little or no animal protein. A high intake of animal protein encourages the loss of calcium from the bones. Replacing animal products with plant foods reduces the amount of calcium lost. This may help to explain why people who live in countries where the diet is typically plant-based have little osteoporosis even when calcium intake is low.

## Planning Vegetarian Diets

It's easy to plan vegetarian diets that easily meet nutrient needs. Grains, beans, and vegetables are rich in protein and iron. Green leafy vegetables, beans, lentils, nuts, and dried fruits are excellent sources of calcium.

Vitamin D is normally made in the body when sun shines on the skin. Those who have regular sun exposure do not normally need to get vitamin D in foods. The only foods that contain significant amounts of vitamin D are those that are fortified with it, such as commercial breakfast cereals, supplemental dairy products or soymilk, and multivitamins.

Vitamin $B_{12}$ is plentiful in some traditional Asian foods such as miso and tempeh. However, in the world of modern processing, the vitamin is not found in plant foods to any reliable extent. Although vitamin $B_{12}$ deficiency is uncommon, strict vegetarians should be sure to include a source of this vitamin in their diet. Many commercial cereals are fortified with vitamin $B_{12}$, as are many soy products, including some brands of soymilk. Multivitamins are also a good option.

## Way etarian

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egetarian diet is

easier than you might think. Most people, whether vegetarians or meat-eaters, typically use a limited variety of recipes; the average family eats only eight or nine different dinners repeatedly. You can use a simple, three-step method to come up with nine vegetarian dinner menus that you enjoy and can prepare easily.

First, think of three vegetarian meals that you already enjoy. Common ones are vegetable stir-fry, vegetable soup, or pasta primavera. Second, think of three recipes that you prepare regularly that can easily be adapted to a vegetarian menu. For example, a favorite chili recipe can be made with all of the same ingredients; just replace the meat with beans or texturized vegetable protein. Substitute bean burritos (using canned vegetarian refried beans) instead of beef burritos. Many soups, stews, and casseroles also can be made into vegetarian dishes with a few simple changes. Finally, check out some vegetarian cookbooks from the library and experiment with the recipes for a week or so until you find three that are delicious and easy to make. Just like that, with minimal changes to your menus, you will have nine vegetarian dinners.

After that, coming up with vegetarian options for breakfast and lunch is easy. Try muffins with fruit spread, cholesterol-free French toast, or cereal for breakfasts. Sandwiches, with spreads like hummus or white bean pâté with lemon and garlic, pasta salads, or even dinner leftovers make great lunches.

## Tips for Making the Switch to a Vegetarian Diet

- Convenience foods cut cooking time. Natural foods stores stock a huge array of instant soups and main-dish convenience items. Regular supermarkets also carry many fast vegetarian foods. Many canned soups, such as minestrone, black bean, or vegetarian vegetable, are vegetarian. Flavored rice mixes, like curried rice or Rice-a-Roni, can be stretched into an entrée with a can of beans. Or try vegetarian baked beans, refried beans, sloppy joe sauce, and meatless spaghetti sauce.
- Ask for it! Even restaurants that don't offer vegetarian entrées can usually whip up a meatless pasta or vegetable plate if you ask. If attending a catered affair, catch the waiter before you are served and ask him or her to remove the chicken breast from your plate and slip on an extra baked potato. Airlines offer vegetarian meals if you ask in advance; ask your travel agent to order you one, or call the airline reservations number.
- Order your next pizza without cheese but with a mountain of vegetable toppings.
- Find vegetarian cookbooks at your local library or bookstore and have fun experimenting with new foods and recipes.
- The best bets for finding vegetarian food when dining out are international restaurants. Italian, Chinese, Mexican, and Indian restaurants all offer a wide variety of vegetarian dishes.
- Texturized vegetable protein (TVP) is fat-free, has a texture like ground beef, and is wonderful in tacos, chili, and sloppy joes. Look for it in natural foods stores.
- Summer barbecues are healthy and fun with meatless hot dogs and burgers. Or, for a real change of pace, grill thick slices of marinated vegetables like eggplant, zucchini, or tomatoes.
- Check out ethnic groceries for special vegetarian foods. Middle-Eastern delis offer stuffed grape leaves, falafel, and eggplant spreads. Italian markets are a wonderful place to find hearty homemade breads, sun-dried tomatoes, and fresh pasta. Indian and Asian markets offer many vegetarian delicacies, also.
- The simplest dishes are often the most satisfying. Brown rice, gently seasoned with herbs and lemon and sprinkled with chopped nuts or sunflower seeds, is a perfect dish.
- Add variety to your diet with ease by preparing familiar foods in interesting new ways. Cook rice in a mixture of water and apple juice. Toss broccoli with raisins, sprinkle sunflower seeds or chopped almonds on vegetables. Simmer carrots, turnips, cabbage, or parsnips in orange juice.
- When traveling, pack plenty of vegetarian snacks like instant soups, fresh fruit, raw vegetables, trail mix, granola bars, and homemade oatmeal cookies. Fill a cooler with sandwiches and individual containers of juice and soymilk.

Hare Krishna Feed the World Day — Saturday November 23, 1996 — What are you doing?

# Vegetarianism and Food for Life

## *-- A Winning Combination*

> "The day that hunger is eradicated from the Earth there will be the greatest spiritual explosion the world has ever known. Humanity cannot imagine the joy that will burst into the world on the day of that great revolution." - *Federico Garcia Lorca*

By Priyavrata Das

Vegetarianism has a long history in the Western world: it can be traced to as far back as the Greek philosopher, Pythagoras, some 2500 years past. During the past five years, however, the vegetarian diet has experienced unprecedented support: in scientific journals, daily newspapers, movies, television commercials, health magazines, and even cartoons—all in their own unique way, supporting the vegetarian ideal and denouncing meat eating as old fashioned, dangerous or inhumane. As a result, Vegetarian and Animal Rights movements have flourished. Membership has escalated and significant progress has been made in changing the way the world eats.

For example, tens years ago, who would have thought that in 1996 the United States Dietary Association would take an official position on vegetarianism, and that in North America alone, 25% of all teenagers would go vegetarian? (Americas leading health magazine, *Vegetarian Times*, estimates there are approximately 10 million vegetarians in the USA.) Ten years ago, who would have guessed that two million factory farms in America would be out of business by 1996?

The world's eating habits are changing—and the evidence is overwhelming: An estimated 10,000 people give up eating meat every week in the United Kingdom ...and that was before the "Mad Cow" scandal! The massive publicity bashing and the subsequent import bans on British beef sent shock waves throughout the Western world, shortchanging the British government and the meat industry billions of dollars. According to one report: Meat sales went down 50% in some parts of Europe.

So what does this all mean? And what does it have to do with Food for Life? In a few words: The largest food revolution in recorded history is about to take place! Let me explain...

There is no doubt that the Hare Krishna movement and Srila Prabhupada's books have done more for the popularization of vegetarianism and cruelty-free living than any other person or organization on the planet. The Vegetarian community, to a large degree, respects ISKCON's contributions, however, what we sometimes fail to realize is that the vegetarian community represents our best group of allies for spreading Krishna consciousness...

Srila Prabhupada is often quoted as saying: "*spiritual life begins at the tongue*" and "*meat eaters cannot understand God*." Considering this, the obvious conclusion then, is that the Vegetarian movement, in a very fundamental way, is helping to build the foundation for a global paradigm shift in spiritual values.

Think back a moment to when you were first introduced to Krishna consciousness and try to remember how much *more* affected you were after changing over to a vegetarian diet. Vegetarianism is the basis of a *sattvic* life, and therefore, a natural step on the path of spiritual enlightenment.

Recently at the International Vegetarian Congress, I met with many of the world leaders in the vegetarian community. All of them were thoroughly appreciative of what ISKCON is doing (although many didn't know), but they were especially impressed with Food for Life. To many of them, Food for Life represents the ultimate vegetarian alternative to the world hunger problem. Of course, Food for Life is more than a vegetarian food-relief. It would be more correct to say *prasadam*-relief. But for the sake of simplicity and understanding, there is no harm in saying "vegetarian," so long as *we know* that our recipients get more than bodily nourishment.

In any case, it is interesting to note that there is a growing awareness in the vegetarian movement for the need to revere and pray over food. Many of the speakers at the Congress talked about the need to develop a deeper, spiritual understanding of our food choices, rather than focus on the superficial health reasons. (At the next North American Vegetarian Congress, I have been invited to talk about *spiritual food*.)

During the Congress, it was encouraging to see so many people wanting to donate or help serve out food on Feed the World Day. For temples that are short on hands, this could be your solution: contact the local Vegetarian Society and ask for volunteers! In any case, Food for Life Global is going to take the initiative by producing a guideline on "*How to make spiritual food*," for the vegetarians. This guideline will be posted to all the vegetarian communities and magazines, along with an introduction to Feed the World Day to encourage their readers to participate. The point is that we shouldn't be attached to idea that only ISKCON devotees can celebrate FWD. Just imagine the effect of having the world vegetarian community observing "Feed the World Day" by offering their food on November 23, and serving out *prasada!*

There awaits a huge resource in the form of the Vegetarian movement for the re-spiritualization of the planet. Krishna is the most merciful: every man, women and child has a place in the *sankirtana* movement. Food for Life, in many ways, is creating the "bridge" to facilitate that opportunity and change. ☺

# Glossary

**A COURSE IN MIRACLES**—is a set of three books which teach that the way to remember God and our oneness with creation is by undoing guilt through forgiving others. It thus focuses on the healing of relationships. The Course originated in 1965, in response to a request from two psychologists to find a better way of relating to others. Christian in statement, A Course in Miracles nonetheless deviates radically from traditional Christianity and deals with universal spiritual themes, reflecting many ancient texts. The Course can be called a spiritual psychotherapy in its integration of metaphysics with psychology.

### SUGGESTED READING

*A Course in Miracles*—Foundation of Inner Peace
*A Talk Given on A Course in Miracles*—Kenneth Wapnick
*Awaken From the Dream* —Gloria & Kenneth Wapnick

**ACUPRESSURE**— is based on an Oriental philosophy that good health develops when qi energy, the life force that flows within us, moves unobstructed through meridians, or energy pathways in our body. In acupressure, blocked energy points are stimulated or dispersed using finger or hand pressure instead of needles as in traditional acupuncture. For definitions of the various forms of acupressure, see "Jin Shin Jyutsu," and "Shiatsu."

**ACUPUNCTURE**—is a form of health maintenance which stimulates the body's ability to correct and balance itself. Developed in China almost 6,000 years ago, it is based on the theory that the qi life-force is channeled in its continuous flow throughout the body by a network of meridians. Disease is understood as an imbalanced meridian system. Hair-thin, usually disposable needles are inserted at specific points along the meridians to stimulate or disperse the flow of life-force in order to correct the imbalance.

### SUGGESTED READING

*Acupuncture*—Felix Mann
*The Complete Book of Acupuncture* —Dr. Stephan Chang

**ALEXANDER TECHNIQUE**— teaches how to improve body coordination, and functioning by inhibiting the habitually inefficient movements that have created distortions in physical motion. The technique focuses on naturally lengthening the spine upward and freeing restrictions in the neck and head. The results include a feeling, in the head, of freedom to float forward and upward, and a lengthening and widening of the back. The Alexander Technique, popular with performing artists, has proven effective when applied to stress-related conditions such as high blood pressure, digestion problems, anxiety, depression, arthritis, back pain, slipped discs, and rheumatism.

### SUGGESTED READING

*Body Learning* — Michael Gelb

**AROMATHERAPY**—is an ancient healing art currently growing in popularity. Aromatherapy uses essential oils extracted from herbs and flowers, which have been revived and verified by scientific research. Applied to the skin or through inhalation, each oil (or combination of oils) addresses a specific emotional disorder, organ dysfunction, skin problems, etc. Aromatherapy also includes principles of massage, diet, and an understanding of the psychological factors of illness.

### SUGGESTED READING

*The Art of Aromatherapy*—Robert Tisserand

**ASTROLOGY**—uses a birth chart as a map of the positions of the planets, relative to the location and moment of birth. The interpretation of the chart incorporates the relationships between planets and the signs of the zodiac, the area of the chart in which they fall, and other symbolic indicators to examine the different levels of the emotional and spiritual psychology of the individual. An astrological consultation helps the client to explore deeper individual potential and meaning, to see how seemingly disparate aspects of the personality may be integrated, to understand the ebb and flow of life cycles, and to find ways to draw the greatest fulfillment from the energies symbolized in the chart.

### SUGGESTED READING

*Astrology, Psychology, & the Four Elements*—Stephen Arroyo
*The Practice and Profession of Astrology*—Stephen Arroyo

**AVATAR**—is a "belief management" system, based on the idea that your beliefs create your reality. Avatar offers a new and unique technology for creating and "dis-creating" beliefs, so that you can deliberately and consciously create the life you prefer. It is delivered in the form of a nine day workshop in which you discover, through a series of exercises and processes, your natural ability to create any reality. The courses are self-paced, non-confrontive and highly respectful of each person's unique path. The Avatar techniques are extremely useful in the areas of health, education, relationships, finance jobs, psychic abilities and overall personal satisfaction. Avatar is taught in more than 50 countries and 14 languages by licensed Avatar Masters.

### SUGGESTED READING

*Living Deliberately*—Harry Palmer

**AYURVEDA**—is a holistic science from India more than 5,000-years-old. "Ayur" means life and "Ved" means knowledge. Ayurveda is the knowledge of longevity which offers healing, rejuvenation, and self-realization therapies through herbs, diet, exercise, yoga, massage, aromas, tantras, mantras, and meditation. According to Ayurvedic tradition, health is the balance of elements air, earth, fire and water; and illness is an excess of an element. Three basic body types-thin (Vata) muscular (Pitta) and fat (Kapha)-have great influence on a person's health and wellness, as do genetic, congenital, seasonal, and electrical factors. Often diagnosing by checking pulse and areas of the tongue correlated with specific organs, Ayurvedic practitioners treat illness at its source rather than at the level of symptoms, believing that an individual can take responsibility for health.

### SUGGESTED READING

*Ayurveda: The Science of Self-Healing* —Dr. Lad
*Yoga of Herbs*—Dr. Lad & Dr. Frawley
*Ayurvedic Healing*—Dr. Frawley

**BIOENERGETICS**—is a system of psycho-therapeutic bodywork founded by Alexander Lowen, who was most directly influenced by the work of Wilhelm Reich. It is based on the interconnection of chronic psychological defense mechanisms, such as repressed emotional trauma, taking the form of rigid muscular tension. The tension, known as "armoring", causes severe energy blockage in the body. Exercise, breathing, and psychotherapy/emotional release techniques are used to release these physical/emotional blocks.

### SUGGESTED READING

*Bioenergetics*—Alexander Lowen

**BIOFEEDBACK**—uses non-invasive, simple electronic monitoring to observe the body's functions and provide information useful to the healing processes, especially with stress. Biofeedback instruments record continuous information

# Your Life

## with ayurvedic herbs

Used for thousands of years in India, these potent herbs are finally gaining acceptance in the Western world. Why? They work.

by Martin Zucker

While most people are now aware of the healing benefits of popular American herbs such as echinacea and goldenseal, many do not realize that some of the most potent medicinal plants come from India. In recent years, Ayurveda, an ancient Indian healing tradition, has attracted widespread global attention and become a popular addition to the "alternative" medicine movement. This trend may, in part, be due to the profound pharmacology of Ayurveda's vast repertory of herbs. In Ayurveda, herbs are used for a variety of problems including balancing disturbances of the mind and body, eliminating toxins, stimulating the immune system, counteracting inflammation and rejuvenating organs.

According to Vasant Lad, B.A.M.S. (doctor of Ayurvedic medicine and surgery), author of *The Complete Book of Ayurvedic Home Remedies* (Harmony Books, 1998), Ayurveda sees disease stemming from imbalances in the doshas, the three governing properties in the body. They are composed of five basic elements — ether, air, fire, water and earth.

The doshas are called vata, pitta and kapha. Vata is the biological combination of ether and air, and involves the principle of movement in the body. Pitta is fire and water, and governs digestion and metabolism. Kapha is earth and water, the structural matter of the body.

"Each human has a unique constitution (prakruti), a special combination of vata, pitta and kapha," says Lad, who is also the director of the Ayurveda Institute in Albuquerque, N.M.

Ayurveda is all about balance. Diseases occur from uncorrected imbalances of the doshas brought about by stress, poor lifestyle habits and poor food choices.

Qualities of vata, pitta and kapha are present not just in people, but in the environment, climate, food and herbs. Unlike Western doctors who often prescribe similar medications for all patients with a certain disease, Ayurveda calls for different foods, herbs, daily routines and exercises for different body types in order to restore balance to the doshas.

"All plants have their own combinations of intelligence and elements as well," says Lad. "The element that is excessive or lacking in the human being can be normalized by using the specific herbs that provide or reduce that particular element." Thus, herbs are often classified by their ability to increase or decrease vata, pitta and kapha in the body.

Researchers are continually validating traditional herbal uses that have demonstrated an ever understanding of the relationship between plants and physiology. Such [illegible]

[illegible]

As spice [illegible]

[illegible] Ayurvedic [illegible] M.D. [illegible] Ayurvedic [illegible] in Bellevue, Wash.

**As rasayanas or tonic herbs.** These plants have broad and [illegible] rejuvenating effects and little, if any, toxicity when used on a long-term basis. They rebuild the body/mind, prevent decay and postpone aging," say Lad and David Frawley, O.M.D., in their book *The Yoga of Herbs* (Lotus Press, 1986).

**As pharmaceutical-grade herbs,** to "affect specific disease conditions or organs or make your body function in a more optimal and balanced way," says Sodhi.

In addition to the common spices traditionally used in Ayurveda, the following popular Ayurvedic herbs are generally available in the United States:

**THE WOMAN'S HERB: Shatavari** (asparagus root or *Asparagus racemosa*) is a primary female tonic. In Sanskrit, shatavari means "the woman ready to marry a hundred times." It strengthens the female hormones, namely estrogen, and is excellent for promoting lactation, reducing pitta, regulating acidity, and healing peptic ulcers and gastritis.

Lad recommends a female herbal combination of shatavari and vidari - kanda *(Ipomoea digitata)*, a relative of the sweet potato that promotes progesterone formation. The two help to regulate hormones, reduce symptoms of PMS and menopause, and prevent osteoporosis. Both are used at the dosage of one-half teaspoon and can be taken two to three times daily.

**THE DE-STRESSER HERB: Ashwagandha** (winter cherr or *Withania somnifera*) is the leading herbal tonic for men. It balances vata, acts on the musculoskeletal and nervous systems, generates energy and vitality, induces natural sleep, improves analytical ability and acts as an adaptogen somewhat like ginseng—that is, it helps counteract the effects of stress. "People under a lot of stress should take it," says Sodhi.

**ASHWAGANDHA (left) is helpful in generating energy and counteracting the negative effects of stress. GOTU KOLA (below) boosts brain power.**

A typical dose is one teaspoon twice a day in powder form, or two 300-mg capsules three times daily. Insomniacs should use it before bedtime.

"Ashwagandha also acts as an aphrodisiac and is good for sexual vitality," says Lad.

**THE REJUVENATING HERB: Shilajit** (mineral pitch) is a blackish-brown material found in the rocky foothills of India, Afghanistan, China, Nepal and Tibet. It is composed essentially of humus, the organic part of soil created by the partial decay of leaves and other vegetable matter. "This is a fascinating substance," says Lad. "It pacifies excess vata and kapha but may be rather strong for pitta people, who should only take a small amount."

Shilajit is a "geriatric rasayana." It helps to prevent osteoporosis and is used to treat diabetes, arthritis, obesity, urinary tract infections, kidney stones, stomach ulcers and a benign enlarged prostate. "It is the best herb for cataracts," says Lad. "If you use it early in the development of cataracts, it will arrest further progress."

John Douillard, D.C., director of the LifeSpa Ayurvedic Clinic in Boulder, Colo., and author of *Body, Mind and Sport* (Harmony Books, 1994), is an expert in using Ayurvedic principles for fitness and athletics. Shilajit helps athletes increase stamina and energy, or

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**THE FOLLOWING checklist can help you figure out which of your particular doshas you need to balance most—vata, pitta or kapha—and how to do it.**

**Check off the questions that pertain to you at present. The column with the highest score represents the dosha you need to balance the most.**

# Are you in balance?

**vata**

Vata relates primarily to movement, mind, emotions, respiration, circulation and the nervous system. Balanced vata contributes to energy, alertness and creativity. An imbalance can cause anxiety, insomnia, an overactive nervous system, constipation and high blood pressure. Imbalanced vata can result from too much exercise, insufficient rest, overwork, fear, grief, worry, excessive raw food and overexposure to cold.

## I need calming

*These are signs of vata imbalance:*

___ I often feel restless, unsettled.
___ My sleep comes slowly or is easily interrupted.
___ I tend to overexert myself.
___ I'm easily fatigued.
___ I tend to be constipated.
___ I feel anxious, and worry too much.
___ I'm underweight.
___ ***Total vata***

## How to prevent or correct a vata imbalance

- Keep a calming, regular routine.
- Go to bed early.
- Eat meals at the same time every day.
- Have regular elimination.
- Keep warm in cold weather.
- Drink plenty of warm liquids.
- Avoid stimulants.
- Favor sweet, sour and salty foods.

## Herbs to correct a vata imbalance

Fresh ginger root, cinnamon, guggul, cumin, fennel and triphala anybody looking for more energy, because it helps the body break down fat and use it for fuel, he says.

The recommended dosage for shilajit is one-fourth to half a teaspoon twice daily.

**THE SKIN-SOOTHING HERB: Neem** *(Azadirachta indica)* is a well-known herb from the leaf of a hardy evergreen tree growing throughout India. It balances pitta and has been traditionally used for eczema, psoriasis, rashes and other skin conditions. "Neem is curative but can also be used preventively if one is prone to skin problems," says Lad. He advises 300 mg of neem three times a day. Externally, neem oil can be applied directly to the skin for relief.

**THE DETOXIFYING HERB: Triphala** is the classic Ayurvedic detoxification formula—made up of three powdered fruits—that cleanses the small intestine, colon and liver. It can be taken on a regular basis, dissolved in warm water or in capsule form. Robert Svoboda, B.A.M.S., a consultant for the Ayurvedic Institute in Santa Fe, N.M., says, "People who have never undergone a detoxification program before may feel a little strange or have loose stools for a few days, but afterward they will experience increased well-being."

Adds Frawley, "Triphala is a mild laxative for chronic constipation. It also improves absorption, aids in combating chronic disease and boosts the immune system."

**BOSWELLIA (above) works well for arthritis, colitus and Crohn's disease. NEEM (left) is used to treat skin problems such as psoriasis.**

HERBS PHOTOS BY STEVE...

**THE ANTI-INFLAMMATORY HERB: Boswellia** *(Boswellia serata* or Indian frankincense), "is a wonderful herb for arthritic conditions and any kind of inflammation," says Sodhi. "Inflammation is a pitta disorder. I have cured patients with [boswellia] who have ulcerative colitis and Crohn's disease, inflammatory conditions of the intestines."

Researchers have demonstrated that the gummy extract of the boswellia tree effectively shrinks inflamed tissue, the underlying cause of pain in many conditions. It is also found to improve the blood supply to affected areas and promote repair of local blood vessels damaged by proliferating inflammation.

Sodhi reports excellent results with rheumatoid arthritis and osteoarthritis patients. Boswellia often permits a patient to be weaned off anti-inflammatory drugs that can have adverse side affects. Improvement generally takes about three to four weeks.

The recommended dose is 300 to 500 mg three times a day.

**THE MEMORY HERB: Gotu Kola** *(Centella asiatica)* is one of the most important rejuvenating herbs in Ayurveda and has a particular revitalizing effect on the nervous system and brain cells. According to Frawley and Lad, it increases intelligence, longevity and memory, purifies the blood, and fortifies the immune system and adrenal glands. ■

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**Pitta**

Pitta involves heat, digestion and metabolism. Balanced pitta generates good digestion, focus and contentment. An imbalance causes anger, skin rashes and ulcers. Alcohol and spicy, sour or salty foods can cause an imbalance.

## I need cooling

*These are signs of pitta imbalance:*

___ I tend to be demanding or critical.
___ I'm a perfectionist.
___ I get frustrated or angry easily.
___ I have sensitive skin.
___ I get irritable and impatient easily.
___ My hair is prematurely gray or thinning early.
___ I don't tolerate hot weather well.

___ ***Total pitta***

## Herbs to correct a pitta imbalance

Shatavari powder, aloe vera, rose, sandalwood, myrrh, coriander, coconut (as fruit or chutney), mint

## How to prevent or correct a pitta imbalance

- Practice moderation.
- Avoid excessive heat or exposure to the sun.
- Avoid alcohol and smoking.
- Manage stress.
- Avoid excessive activity or overwork.
- Avoid spicy, sour or salty foods.
- Avoid skipping meals.

**Kapha**

Kapha is structure and solidity. Balanced kapha gives strength, stamina and good immunity; imbalances, sluggishness, depression, excess weight and allergies. Sleeping during the day, lack of exercise and certain foods can cause imbalances.

## I need stimulating

*These are signs of kapha imbalance:*

___ I often feel complacent or dull.
___ My skin is oily to normal.
___ I tend to have slow digestion.
___ I feel lethargic.
___ I can be possessive, or over-attached.
___ I tend to oversleep.
___ I'm overweight.

___ ***Total kapha***

## Herbs to correct a kapha imbalance

Ginger powder, cardamom, black pepper, licorice root, green tea, garlic

## How to prevent or correct a kapha imbalance

- Stimulation is vital.
- Avoid excessive rest and oversleeping.
- Favor spicy, bitter and astringent-tasting foods.
- Don't eat too many heavy, oily foods.
- Get plenty of exercise.
- Seek out variety in life.
- Keep warm in cold, wet weather.